

ANGLO- SOVIET JOURNAL

CONTENTS

Science in the USSR To-day **J. D. Bernal, F.R.S.**

Literary Criticism **A. Fadeyev**

Materialism in Linguistics **G. P. Serdyuchenko**

Idealism and Metaphysics in Psychology **Brian Kirman, M.D., D.P.M.**


Settlement of Labour Disputes in the USSR **D. V. Schweitzer**

Recent Developments in Soviet Music **H. C. Feldt**

Musicians in Moscow **Thomas Russell**

Soviet Sport **J. Armour-Milne**

AND BOOK REVIEWS ETC.

VOLUME XI  NUMBER 1

SPRING
1950

TWO SHILLINGS & SIXPENCE

SCR

OFFICERS, 1949-50

WRITERS' GROUP.—*President:* J. B. Priestley, M.A., LL.D., D.LITT. *Council:* Prof. T. Hudson-Williams, D.LITT., Storm Jameson, D.LITT., Somerset Maugham, Walter de la Mare, C.H., D.LITT., Sean O'Casey, B. Ifor Evans, M.A., D.LITT. *Hon. Treasurer:* James MacGibbon. *Committee:* James Aldridge, Eric Ambler, Adrian Brunel, Arthur Calder-Marshall, Mrs. Cecil Chesterton, O.B.E., Roy Fuller, Jack Lindsay, Compton Mackenzie, O.B.E., LL.D., David Magarshack, Bertha Malnick, PH.D., Hermon Ould, Ernest Raymond, W. R. Richardson, Edgell Rickword, Montague Slater, L. A. G. Strong, Julian Symons, Dylan Thomas.

THE ANGLO-SOVIET JOURNAL

The Anglo-Soviet Journal is the quarterly organ of the Society for Cultural Relations between the Peoples of the British Commonwealth and the USSR.

The Society is a non-political organisation founded in 1924 to diffuse information in both countries on developments in science, education, art, literature, and social and economic life.

The SCR organises lectures, concerts, film shows, playreadings, exhibitions and so on, and has the largest collection of information in Britain on cultural aspects of the USSR. It carries on these activities largely through its specialised bodies, the Science Section, the Education Section, the Writers' Group, the Legal Section, the Architecture and Planning Group, the Theatre Section, the Film Section, the Music Advisory Committee, the Legal Section, the Art and Archeology Section, and so on.

The SCR Library contains thousands of volumes in English and in Russian and is a most comprehensive source of authoritative information on Soviet cultural matters, as is also the Exhibition Department as regards pictorial and display material.

Members of the SCR are entitled to borrow books from the Library and to take out subscriptions to the *Anglo-Soviet Journal* at a reduced rate (8s. 6d. as against 10s. for non-members). At many of the Society's functions there is a reduced admission fee for members. The minimum subscription to the Society is 5s. a year.

Editorial Office :

14, KENSINGTON SQUARE, LONDON, W.8.

Telephone : WEStern 1571.

A

S.C.R. PUBLICATIONS

RUSSIAN PAINTING, 1700-1917: by Jack Chen. An historical commentary on the development of painting in Russia, essential to the understanding of the contemporary Soviet School. With fourteen illustrations. Price 1s. (postage 2d.) from S.C.R. Exhibition Department.

SOVIET WRITERS REPLY: Answers by Soviet writers to questions from British writers, with introductions by J. B. Priestley and Konstantin Simonov. Price 1s. (post 2d.) from S.C.R. Writers' Group.

EISENSTEIN COMMEMORATION: A souvenir programme in book form, with articles by Paul Rotha, Ivor Montagu, John Grierson, Marie Seton, Herbert Marshall. Fully illustrated by superb stills. Price now 1s. (post 3d.).

ARCHITECTURE OF THE USSR: A fully illustrated booklet prepared by the Architecture and Planning Group for the recent exhibition at the RIBA, giving historical background and contemporary development. Price 1s. (post 2d.).

BOOK LIST ON THE USSR: Prepared by the SCR for the National Book League. Indicates some of the best-known books which have appeared during the period from late 1942 to early 1947, and supplements the previous list published in 1942. Price 10d., post free.

ANGLO-SOVIET CHESS MATCH, 1947: Complete record of the over-the-board match. Edited by William Winter. Games annotated by G. M. Levenfish. Price 5s. (post 3d.).

SOVIET DISCUSSIONS ON THE ARTS

The following summaries, prepared by the S.C.R. Library, are available in duplicated form. The prices in brackets are those for members.

Union of Soviet Writers: Twelfth Plenary Session of the Board, December, 1948 (literature of certain republics, theatre repertoires, dramatic criticism, cinema). 2s. 6d. (1s. 6d.).

Union of Soviet Composers: Plenary Session of the Board, December 1948. 2s. (1s. 6d.).

All-Union Composers Conference, April, 1948: Summing-up speech by A. A. Zhdanov. 2s. 6d. (1s. 6d.).

Graphic Arts: Summary of Press Discussions, March-September, 1948. 2d. Press Summary, September-December, 1948, and Plenary Session of USSR Academy of Arts, January, 1949. 2s. 6d. (1s. 6d.).

Pavlov Centenary Lectures:

I. Recent Advances in Conditioned Reflexes. By Dr. Angus McPherson. 2s. 6d. (1s. 6d.).

II. The Application of Conditioned Reflexes to Psychiatry. By Dr. Brian H. Kirman. 2s. 6d. (1s. 6d.).

Psychology: "Against Idealism and Metaphysics in Psychology." By E. T. Chernakov (Problemy Filosofii, 1948, No. 3). 3s. (2s.).

Linguistics: A note on Academician N. Y. Marr. 1s. (6d.).

TABLE OF CONTENTS

	<i>Page</i>
SCIENCE IN THE USSR TO-DAY - - - <i>J. D. Bernal, F.R.S.</i>	4
IDEALISM AND METAPHYSICS IN PSYCHOLOGY - - - <i>Brian Kirman, M.D., D.P.M.</i>	18
THE SETTLEMENT OF LABOUR DISPUTES IN THE USSR - - - <i>D. V. Schweitzer</i>	23
N. Y. MARR AND MATERIALISM IN LINGUISTICS - - - - <i>G. P. Serdyuchenko</i>	31
LITERARY CRITICISM - - - - <i>Alexei Fadeyev</i>	41
RECENT DEVELOPMENTS IN SOVIET MUSIC - - - - <i>H. C. Feldt (trans:)</i>	44
MUSICIAN IN MOSCOW - - - - <i>Thomas Russell</i>	50
SOVIET SPORT - - - - <i>J. Armour Milne</i>	55
BOOK REVIEWS - - - - - - - -	57
<i>(Bondar's Russian Readers 2 and 6: Concise Russian Course: Conversational Guide: Giants at the Crossroads: Maritime History of Russia: Moscow Correspondent: Russian and the Slavonic Languages: Russian Railways: Smoke: So This Is Russia: Soviet Russia and the Far East: Structure Drill in Russian: Through the Iron-laced Curtain: Unrequited Love).</i>	
SCR ACTIVITIES - - - - - - - -	63
BOOKS SUBMITTED FOR REVIEW - - - - -	64

ANNOUNCEMENT

Readers will notice that with this new volume of the *Anglo-Soviet Journal* we are beginning a policy of publishing larger translations from Soviet sources, together with original articles.

We are happy to announce that as from July, 1950, Mr. Andrew Rothstein will take over the editorship of the *Journal*.

SCIENCE IN THE USSR TO-DAY

Transcript of the lecture given by PROFESSOR J. D. BERNAL, F.R.S., on Saturday, October 15th, 1949, at the Beaver Hall, London, Mr. J. G. Crowther in the Chair, for the S.C.R. Science Section.

PROFESSOR BERNAL : Ladies and Gentlemen—I am not going to give you—I could not possibly give you—an account of science in the Soviet Union. That would require the residence of a very large number of scientists for a very long period in the Soviet Union. All I can do is to give you certain impressions—certain samples of scientific work in the Soviet Union which I was able to witness myself in the very short time that I was there. I can do that with some confidence, though with the full realisation that I am only giving you samples. To get an over-all view, to get the proper weights distributed in the proper fields of activity, to find out which are the priorities and which are the general trends, would go far beyond the opportunities which I had in the Soviet Union. Nevertheless I think these samples are at least illustrative, and can cover some of the questions and still some of the doubts that have been raised about Soviet science in countries outside the Soviet Union.

I had, of course, one minor advantage in this field, in that it was not my first visit to the Soviet Union. My previous visits were a long time ago—in 1931, 1932, and 1934. But science has great continuity, and I was very glad to be able to greet many of the scientists that I knew in those days and to see the continuation of actual pieces of research which were going on at that time. Most of what I saw, however, was entirely new.

I WILL begin more or less chronologically with the examination of my samples. The first and most natural field for me to occupy myself with, is my own specific field of crystallography and crystal structure. I visited the laboratory of Professor Schubnikof. He was already in Moscow when I was previously there, and now he is the head of an independent institute of the Academy—the Institute of Crystallography—which is carrying on fundamental work in crystallography over a very wide field of studies. I should say that I am perhaps starting at the most difficult end, because crystallography is a small subject which is unfamiliar to most people. In fact, most people do not even know what it is, because I get letters about crystal gazing and so forth! We do not look at crystals in that way. The object of crystallography is to find out about the crystal, and not about anything else. What we are really doing is to unravel the patterns which the atoms and molecules make inside the crystals. We interpret the term crystal fairly widely to cover quite irregular substances that we do not normally think of as crystals, such as hair and muscle—in fact, anything that is more or less solid.

Crystals can be investigated by a large number of different methods. The method which I have been concerned with is the X-ray method. But there are a large number of other methods, and I found them all being employed in these laboratories. A great interest has recently arisen in one of the earliest questions of crystallography—the question of how crystals grow. The growing of crystals has now become a matter of scientific and technical importance, because more and more in other fields of science—particularly physics—crystals are required. They are urgently needed in radio; quartz crystals are required for oscillators and quartz and tourmaline crystals for piezo-electric receivers, rochelle salt crystals and other ferroelectrics are required for various types of oscillators and filters. There are not enough natural crystals so artificial ones are used instead, and we must turn to the crystallographers to find out how to grow them. This is where fundamental research comes in. You cannot really learn to grow any particular thing until you know more about the general mechanism of growing: how, in detail, each molecule settles

down on a surface ; how this crystal grows by adding molecules along certain lines and edges. In fact, the building of a crystal is quite as complicated as the building of a house, only it is done by means of a balance of natural processes which have to be understood before they can be controlled. I saw some very very beautiful work on the fundamental principles of the growing of crystals, and new and simple methods for examining the fine details of their faces.

I also saw a great deal, of course, about my own type of work as well—the analysis of crystal structure by X-rays. That, as Mr. Crowther said, has been a peculiarly British branch of science, and I was glad to see it was starting up in a big way in the Soviet Union. From the examples I could see, it was mostly on mineral structures.

What interested me particularly was the apparatus. Various kinds of cameras—Weissenberg and rotation—were in function, and they were all Soviet made. As I know this kind of apparatus well, I was able to form a fairly shrewd idea of how well made it was. I noticed particularly that the X-ray tubes for this purpose were Soviet made, and this leads me to a curious commentary on the present state of the world. We do not make any such tubes in this country. It is considered that the subject is not important enough to justify the expense. We import them from America, where they are made—we must admit rather badly. However, we could not send any from America or this country to the Soviet Union if we had them, because that is prohibited on the ground that this is electronic apparatus with which, if they had them, the Russians might make an atomic bomb. The question arises whether we should be at liberty to import from the Soviet Union the material we are not allowed to export to it. However, that is just an example of what I noticed in all the laboratories and industrial exhibitions which I saw in the Soviet Union. They have now not only a very fine machine-building industry, but also a very fine instrument-building industry as well, including optical and mechanical instruments and electrical instruments of all kinds ; and they are made on a large scale by semi- or complete mass-production methods, and are consequently, I imagine, though I was not able to get any prices, a good deal cheaper than many of ours.

Other work which I saw at the crystal laboratory was new to me—the use of electron diffraction for complete analysis of crystal structure. The full development of this method—and they seem to have made a very good start at it—would have an enormous advantage if it could be done, because with electrons you could examine crystals very much smaller than those which can be examined by X-rays, since electrons have a greater scattering power. In many cases it is very useful to work with a small crystal—you cannot always get big ones. It is one of the things I would like to take up now, as a result of my visit to the Soviet Union. That is enough, I think, for crystallography. I could go on, but I do not want to bore you with technical details on that subject.

THE next laboratories I studied were also laboratories in which I was interested as supplying the material with which I work. As Mr. Crowther said, I have been working recently on proteins. I was very interested to know that work was being done on proteins in the Soviet Union. Here I met another old friend of mine, Professor Talmud, and also Dr. Bressler from Leningrad, and they showed me the most amazing work on proteins that I must say has completely altered my views on a large number of protein problems.

If I can explain it fairly simply, the kinds of protein I deal with are the globular proteins which furnish the mobile parts of cells of animals and plants. The commonest—the first of the proteins, so to speak—is egg white, albumen ; but we have the globulins of the blood ; we have the myosin of muscles ; we have the enzymes and such important substances as insulin. Up to now, proteins have been the most difficult of all chemical substances to study. They are so complicated that most chemical methods break down before they get anywhere

near the answer. We have been attacking them in my own laboratory with X-rays and we are still a very long way from the answer. The Soviet scientists' attack on the proteins was on rather different lines. They attacked them as if they were dealing with a complex mechanism held together by various different kinds of links. Some of those links are electric charges, others are electric di-poles like little magnets, which we call hydroxy bonds. Others are like the links between ordinary fatty substances. Now, those different links are susceptible to different kinds of chemicals, and by treating the proteins very delicately, so as not to break them up, by such things as urea and benzene Bressler and Talmud were taking one link at a time. I am quite sure that this physico-chemical method, combined with X-ray and with other analytical methods, will enormously further our study of the proteins. I want to go straight back myself to some of the proteins I have been studying, and with these different reagents see what difference it makes to the X-ray pictures.

More exciting than this analytical approach is their synthetic work. I had heard something of it before I went to the USSR in a vague kind of way. This time I was able to see the work itself, and I think it is one of the major discoveries of this century. Ordinarily, when we eat some meat, let us say, the pepsin in our stomach breaks down the protein into something completely soluble. We cannot digest protein as such. The protein that we eat does not become the protein of our tissues. It is broken down into the smallest pieces capable of going through the walls of the intestines and then of being resynthesised, reassembled into our own private proteins in the cells of our own bodies. We have known for a long time that the breaking-up of the proteins is a biochemical process carried out by special proteins. You have simply to extract the pepsin, called enzymes, from the stomach, and put it into the protein solution. It will break up the glutinous material into a clear solution with smaller units, which will go through the membrane of the digestive system in a way the original protein will not do. Bressler and Talmud have reversed that process. They have taken a protein and broken it down completely, leaving the activity in it—that is important. They have then compressed it to about 10,000 atmospheres, and have got the protein back again. Until they did it the failure to synthesise proteins remained almost the last refuge of the pure ideas of vitalism—that a vital force, or something mysterious, was necessary to put proteins together. It is like all the previous steps in this region of the unknown: simply that people have not tried hard enough, or tried the wrong way. I would not say the protein they have synthesised is identical in all respects with the protein they start off with. It is clearly not. But its mean molecular weight is the same and it has some of the right characteristics and properties, such as the immunological property of producing reactions in animals sensitised to the original protein. I feel that Bressler and Talmud have made a very important step forward in the structure of protein, both on the side of analysis and, as I think far more important, on the side of synthesis. That is just one piece of work out of many that are going on at this biochemical institute.

I had a long talk with Professor Oparin, the head of a growing school of biochemistry, about the origin of life, on which he has written a book, and also with Professor Engelhart, who was responsible for another very big discovery in the protein field—the discovery that the muscle was the substance that activated the adenosine triphosphate-diphosphate reaction which is the main channel of energy transfer in living systems.

Unfortunately, I was unable to see Professor Frumkin, of the Physico-Chemical Institute, though I saw one of his colleagues, Professor Frost. In this field too there have been enormous advances linked up with the general development of the chemical industry in the Soviet Union. I saw some of the results of the work on the chemical industry in the Polytechnical Museum, and some very interesting developments are coming out of it. First of all, there is the idea

of the full rational use of chemical resources. In the past people have been content to make use of natural resources which have only to be slightly processed—purified and combined with other things to make something useful, like turning latex into vulcanised rubber. Now, the tendency in chemistry is to work in a more drastic way—to break down the materials practically to the atoms and then to put them together in a controlled way. That has been followed very largely in the Soviet Union, but without any prejudice as to the use of purely artificial synthetic methods. Use is also made of zymogenetic or microbiological methods, such as the use of yeast.

One of the things that interested me very much was the use being made of peat. The peat resources of the Soviet Union are extremely large. They are, I think, some thousands of times larger than the oil resources, which are quite large in themselves. The full utilisation of peat is one of the things which will, I think, make an enormous difference to the general economy of the Union. It has been developed very thoroughly, and they have what are virtually peat combines working through the peat bog and handing out the peat in a suitable dried form for further processing. It is then vacuum-distilled, and some extremely useful waxes are extracted. Some of the residues are used for growing yeast, which can be used for food, and the remainder can be turned by water gas, or a similar process, into a fuel and even synthesised into an oil or petrol. In other words, there is now a totally integrated chemical industry based on peat. The same is done with a large number of other materials.

FROM those two fields of scientific research I would like to go on to spend more time on another, because of the great interest it has aroused inside and outside the Soviet Union. One of the things our delegation particularly wanted to see before leaving the Soviet Union was Lysenko's establishment. The general impression one gets of the Soviet Union is quite different when one is there, even to a person like myself, who has spent a great deal of time in reading about it and studying it, and who has earlier memories of it. The impressions we formed were so different from what we expected, and I think that applied most of all in the case of Lysenko. Quite honestly, I do not think anyone who has not at least had the time we had with Lysenko can make any judgment, not so much on whether he is right or wrong, but—a far more important point—on what it is all about. It is so different from what we are accustomed to in biological science, both intrinsically and in its relationship to practical work, that you really have to see what is going on, to talk to Lysenko, to get the hang of it.

I was lucky, before I met Lysenko, to get hold of a book which you can now buy here, *The Selected Papers of Michurin*. Until I read that book, my knowledge of Michurin was derived from popular journalistic accounts, and from an extremely beautiful film shown by the Soviet Embassy on Michurin's work. From all of these one got the impression that Michurin was a man of great practical genius in the handling of plants and the growing of new varieties, particularly of fruit. He has often been described as a Russian Luther Burbank. Burbank was the great hybridizer and nurseryman who raised many new kinds of fruits in the United States at the end of the nineteenth century.

If you read Michurin's works for yourselves—and perhaps not only those of you who are scientists, but any who happen to be interested in gardens and fruit trees—you will find something quite different. Here is a person who for a great number of years, from 1885 to 1935 (and time is important because fruit trees do not grow quickly—you have to follow them for years to see what they are capable of), carried out his plant hybridisation and grafting. He was a real scientist, that is, in the sense that he studied his material with a view to understanding how it worked in order to make it work in the way he wanted. There is a complete cycle from the material to the understanding and back to the

material again. The really effective test of a scientist is whether, as a result of his laws and theories, he can predict and control the nature he is handling.

From his practical experience as well as from planned experiments, Michurin did arrive at a large number of general principles which lie outside the main focus of interest in the biology of our time. If you study the history of science, you will see that nature, being extremely wide, is nicely parcelled out in the text books and in University courses into different subjects—botany, biology, plant physiology, genetics, and so on. But if you look into it carefully, you will find that only a very small part of a broad field is covered. The rest remains in a kind of stagnant backwater until someone breaks into it and cleans it up. To go back to the physical field, you probably remember at school learning about the laws of friction—that the force needed to move a thing depends not on the load or on the area, but only on something called the co-efficient of friction. That was discovered in 1665 by Amonton, and no new work was done on it until 1927, when Bowden found out what happened when you rubbed one thing against another. Similar things have happened in the biological field. It is fairly clear that Michurin's work was an untitled section, one very largely concerned with plant physiology, including the effects of the different conditions on plant growth—the light, the soil, the effect of one plant on another, and last but not least its hereditary conditions. He came upon many general principles, but those general principles were not of a kind that interested the great majority of other biologists. For they were concerned, at least from 1900 onwards, with other very exciting and interesting problems concerned with the mechanism of inheritance and the selection of pure and cross-bred lines.

I bring Michurin in because Lysenko is a Michurinist, though not in the sense I had originally thought. Lysenko first heard of Michurin in 1930, during a discussion—the kind of discussion, I imagine, that goes on all the time in biological circles in most parts of the world, when people are saying, "What absolute nonsense this is! It is completely against all the basic theories of science". While Lysenko listened to this, he found himself sympathising with Michurin and against his colleagues, for though he had been brought up, like everyone else, on the accepted theories, he sensed more contact with nature, as he knew it, in Michurin's views. Then he thought he had better find out something about it; he read Michurin's works and began to apply them to his own field—that of field crops. The point I want to make is that Michurinism is not something that needs personal transmission. It is not a kind of mystery. It is a general approach—an idea of biology which is quite easy to grasp if you have any practical experience of biology—and that, of course, is what Lysenko had. He is the son of a peasant, now a collective farmer, who had an agricultural training as an agronomist—a horticulturist—who has spent his whole life with plants, and who appreciated the intrinsic understanding of plants that was in Michurin's work. I think any of you who are biologists or gardeners would see it at once on reading his papers, and would appreciate it still more in repeating and extending his actual experiments on fruit trees.

I read Michurin's works while eating some of the Michurin apples, and they were very good apples indeed. But it was not so much that they were good apples: we have good apples in this country and in many others. Michurin points out exactly why. The occurrence of good brands of apples is largely accidental; in time, if there are enough people to grow apples, sooner or later a very good apple will be found on a tree self-sown or planted in some wood or orchard, and this will be selected and propagated by gardeners or nurserymen.

Michurin apples are constructed—they are not accidental. He coined the phrase: "We cannot wait for favours from nature—we must snatch them from her." They are produced by a deliberate planned attack on the plant to get definite results, and this is a very definite step in advance in horticultural

production. I am not competent—and I do not propose, even in questions—to argue about the purity of the stocks, the existence of viruses, and so forth. All I can say is that as a scientist I was very impressed by the intrinsic quality of Michurin's writings.

NOW I come back to Lysenko himself. Lysenko received the whole deputation. Four of us had some scientific experience, Mr. Crowther, the Dean of Canterbury, and Ivor Montagu, who started off in his extremely versatile career as a scientist, has even a degree in zoology, and I think is the greatest expert on the minor rodents of Eastern Europe. Apart from that we had no particular biological experience, but we were able, for the period of about six-and-a-half hours, to keep at it, question and answer, and demonstration—which is quite a long stretch, especially as poor Lysenko had a bad throat and found it obviously painful to talk. I think, with a knowledge of the genetics controversy beforehand, and especially of particularly disputed questions, we were able to get a fairly accurate general picture of Lysenko's work and of his attitude to orthodox genetics.

We first saw him at the Agricultural Institute, one of the oldest and most charming houses in Moscow. His study, where he received us, looked very much like a country seedsman's back shop. The room was full of seeds, scions of various kinds for grafting, shoots from different kinds of plants, fruit, and all kinds of things. Lysenko is definitely, I think, one of those people who, if he were not in the Soviet Union, would be the darling of the old-fashioned scientists in this country. He is one of the string-and-sealing-wax (or rather grafting-wax) type of scientist. In that sense, I could not help thinking he must have worked very much in the way Darwin worked in his time. There were none of those beautiful streamlined fitments associated with modern scientific offices, calculating machines, card index systems, and all the rest. It was extremely *ad hoc*. Nevertheless, he moved round in this mass of vegetation with complete mastery. He knew exactly what he wanted. He could say, "Fetch that thing out from behind so-and-so", and the man would bring the specimen just as it came up in the argument to illustrate the particular point Lysenko wanted to make.

We had the same impression when we got to his farm. We went out to the farm, which is at Lenskygorod, about fifteen miles away from Moscow, in the depths of the country. It is an old agricultural station—quite a small one. Curiously enough I had been not there, but next door, on a previous visit in 1934. There is nothing massive about it. The large-scale work of Lysenko is done in his field laboratory, which is the thousands of square miles of the Soviet Union. If you want to know something about how this vast laboratory works, I can recommend to you a little booklet which has just come out, called *The People's Academy*. It took me about two hours to read it, and I could not put it down. It is the story of one of those efforts that have been made in recent years in the Soviet to increase agricultural productivity. It is the story of how the yield of a particular grain (millet) was raised from two to eighty—I think it was pounds—per hectare in the course of about five years, by the Lysenko methods. These were developed and applied—and this is the important point—by thousands and tens of thousands of collective farm workers up and down the country, working with the scientists. That is a different kind of scientific tie-up from what we have in this country, and we must expect it to be different in other respects also.

The greenhouses, where we saw the plants, were again quite small, but I must say they made up in quality what they lacked in quantity. We went into one of the strangest greenhouses anyone has ever been in, because there was hardly an ordinary plant in it. Most of the plants were growing quite different things in different parts. For example, when he was discussing the question of

graft hybridisation with us in his study we were shown the celebrated tomatoes. These tomatoes were, as the critics have said, wax tomatoes—and, of course, you can prove anything with a wax tomato. But when we went to the greenhouse we saw the actual tomatoes growing on the plants, and they were exactly the same as the wax ones. The demonstration of graft hybridisation was very simple. Two kinds of tomato plants were used—small red, and large yellow. When a young shoot of the yellow was grafted on the red, its fruits were pink, while those of the stock below grew larger and the seeds from these tomatoes gave rise to new plants, which we saw, with a variety of fruits of mixed character.

I do not claim to know what the mechanism is, but I am prepared to say that I have seen the actual plants and other things which were even more startling, and which fit in with this general theory. There is a cabbage there—a very peculiar looking cabbage. The ordinary cabbage has a head, and if you leave it, it will push out a long spike of flowers, and go to seed in the next year. This cabbage plant had a large cabbage head on one side and a spike of flowers growing out of the other side. It was doing two years in one, and it illustrates one of the major principles of the Lysenko-Michurin theory which I did not find so peculiarly unscientific. It seems to me to fit in very closely with the work done in embryology in the animal field.

If you take any organism in an unstable state—which may mean taking it very young—or when any particular part of it, like a bud or a shoot, is growing very rapidly, it is much more susceptible to changes in the environment than it normally is. Normally a plant is pretty stable to its environment. Otherwise we would not have the things that breed true. But according to Lysenko you can, by working on unstable states, not only modify the organism itself, but also definitely affect the seeds of the organisms if the original part worked on contributes to their formation. This is his form of the theory of the inheritance of acquired characters, which was supposed to be disproved once and for all by the old experiments by Weissman. But cutting off the tails of rats generation after generation is not, of course, a proof that you cannot transmit characters. It is simply a proof that that is not the way to do it. By acting on organisms in their unbalanced state, you can get results. Take the case of these cabbages, for instance. They were produced by grafting one-year cabbages on to two-year cabbages. If the graft is young enough it becomes a two-year cabbage straight away and never goes through the first-year stage at all. If, however, it is a little older, it remains a one-year cabbage growing on a two-year stock. Similarly, there are other queer grafts of that sort, such as carrots on parsley (I collected some of these seeds and hope to sow them, though I don't know quite what is going to come out of them). Lysenko showed us himself how these grafts were done. All he needed was a penknife, string, and grafting wax. It was really so simple. Anyone could do it, and there is an enormous amount of fun and games to be got out of it. If you take shoots young enough, you can apparently graft practically anything on to anything else. Michurin shows a picture of a lemon grafted on to a pear tree, for instance. This graft took, but it did not produce a fruit half-way between a lemon and a pear—all it did was to make a pear tree evergreen.

ANOTHER very important side of the work that Lysenko showed us was that on vernalisation, an agrobiological technique that he started himself. I had no idea until I saw some of this, what a precise thing vernalisation was. He showed us diagrams of it in his study, and then the actual plants in the greenhouse. He takes a winter wheat, or any other cereal, and treats the seeds for a certain number of days at low temperatures. If the number of days is less than a certain amount, they will grow into low plants like grass, and will not form ears. For rye, which was the plant he showed us, the vernalisation

period was 32 days. With 30 days' treatment there is absolutely nothing: at 35 days, every one of them springs up and forms a true ear. There is a sharp distinction. The important thing is that between 30 and 35 days the plant is in a state of instability, or is "suffering", to use Lysenko's language. It is metaphorical but, I think, quite accurate and descriptive language. The plant cannot quite make up its mind. If it was an animal, we should say it was having a neurosis. It does not know whether it is going to send up a shoot or not, and in these circumstances it is extremely susceptible to external changes. Take it at 32 days, and that material is the right kind of material on which to try particular modifying tests.

Lysenko told us something of the story of what was one of his major achievements—how he made the winter wheat for Northern Siberia. In Northern Siberia the summers are quite hot, but very short—for spring wheat you have to sow at the end of June or July and harvest early in September at the latest. There is a very short growing season and a very poor yield, so it would be ideal to have a winter wheat. Lysenko tried all kinds of special frost-resistant winter wheats, and realised they were no good, so he took the spring wheat and turned it into a winter wheat by sowing it in the autumn—not ploughing the ground, but sowing on the bare stubble. Most of it died, but some grew; by doing that three years running, he was able to produce from the spring wheat a winter wheat that was suitable to the climate, and would give very good yields if sown in ploughed land. The process of open sowing was only necessary for protection from frost. The ground is permanently frozen in these parts, and the real danger was frost coming up from below rather than air frost, from which the seeds are protected by the snow. All that involves a study not just of the genetics of an organism but of the whole complex—agricultural practice and everything else.

That is the real genius of Lysenko's work and the source of the mystery of Lysenko. He is not just an intelligent peasant, or a monk, or anything of that sort—he does not hypnotise the Supreme Soviet into putting him in power. He gets results, and he gets results in a way other people cannot get them because he works quickly. He works on the whole set-up, seed and plant, land and weather, man and machine. For instance, take this millet story. I cannot tell you the whole of it, but the essential point is that if he had waited until he had selectively bred a high-yielding millet he would have had to wait four or five years. But the Soviet Union could not wait, for they needed to increase the yield of millet five times in one year. The first step was simply a matter of finding how to sow the millet. Millet is, or was, a troublesome crop because of the enormous amount of weeding it required. He sowed it very much later, when the ground was warm, and in that way got it up ahead of the weeds. Sowing the millet far apart also helped; he could plough in the weeds between the rows and give the millet a chance. You can actually get a better yield by ploughing in four-fifths of the crop itself than if you let the whole field grow. It is largely by such agrotechnical methods that Lysenko has made his name and reputation.

The reason why all this interests me is partly because I was brought up on a farm and partly because of my war experience, particularly in operational research. The harvest in the Soviet Union is a real operation, on which the lives of more people depend than on the outcome of most battles. Consequently, you have to take not an academic but an operational view of it. You have to consider not whether you can raise the yield by a few per cent; nothing less than 200 per cent is worth thinking about. That is the kind of attitude which can be carried through in agriculture only in the Soviet Union and in the countries which are following her lead.

Among the remaining things I saw which were of great interest were the cattle, particularly the new Kostroma breed, an all-purpose breed for milk and

meat. I was brought up on a dairy farm, and have a very shrewd idea that these cattle are extremely good, but Lysenko does not claim that they are better, for instance, than some British breeds of cattle, and he stressed that Professor Hammond's work on breeding, for instance, is exactly on the lines he would recommend in the Soviet Union. He has the greatest admiration for the practical breeders of Britain and for the long tradition of animal breeding from the eighteenth century onwards, because these people do not work with genes and chromosomes but with two things—the general character of the beasts they are trying to get and the kind of feeding and treatment to give the animal in order to get the high milking or high beef yield of the stock.

We asked him what he thought about chromosomes and their functions. "Well," he said, "I do not know everything. I really do not know what the functions of chromosomes are. I suppose we shall find out." But he does not believe the chromosome is some kind of definite permanent pattern which imposes itself on the organism, nor does he believe that when you get a fine breed of cattle, or a fine crop showing characters which never appeared in their wild ancestry, that these characters always did exist. He rejects altogether the picture that God from the beginning of all time had laid down all the characters of animals and plants, or even that they arise by chance mutations, which we cannot control and must select. He does not deny that both these processes do occur, but he considered them relatively unimportant in natural evolution and of secondary importance in agriculture, where he claims there are much more direct ways than relying on selection from chance variations to produce specific improvements.

I THINK I have said enough about Lysenko, and I will come on to my final topic, which is the more general one. One of the most useful interviews we had was with Vavilov, the President of the Academy of Sciences, and about eight other leading Academicians, where we discussed the general situation in Soviet science, the changes that had been carried out as a result of Lysenko's work in the direction of the teaching of biology and genetics in the Soviet Union, and the relations between science in the Soviet Union and this country.

I think I can say this: it is quite clear from everything one sees in the Soviet Union that the scientists there have a feeling that they are a part of a general enterprise. It is extremely difficult for us who live in a society without any common purpose, to realise what it feels like to live and work in a society that has a purpose, and how differently scientists and workers think about such questions as freedom and responsibility. I learned something of it through meeting the same people after fifteen years. When I was in the Soviet Union fifteen years ago, they asked me in Moscow what I thought about science there, and I said I thought science in Moscow was rather like science in Cambridge, and so it was. What surprised me at that time was that they took it as a compliment. Their ideal of science was to have it like it was in Cambridge. Science in the Soviet Union to-day is not like science in Cambridge, and if you think that science like it is in Cambridge is necessarily the only kind or the best kind of science in the world, you will completely fail to understand science in the Soviet Union. It reminds me very much of a discussion I attended in the war at a very high strategical level, when someone asked a very important general whether there were any lessons to be learned from what was happening on the Eastern Front, and he said: "Certainly not! That is a second-class war."

I think that represents pretty fairly the attitude of many of our scientists in this country towards Soviet scientists. I found old colleagues of mine who never grew anything at all, or nothing much more than a tadpole, let us say, pronouncing on the scientific level and barbarian nature of Soviet scientists who have produced vegetation over areas that never had any before, who have doubled and trebled and quadrupled yields, who have transformed old crops

into entirely new crops. It may not be science, but we had better find out what it is.

The impression the scientists there gave me was that they knew perfectly well what they were about. They were getting an enormous advantage out of the feeling that their work was, as it were, flowing into the field all the time, that they were getting something out of the field and putting something back. I have been talking about biology and agriculture, but that goes just as much for the physical sciences. What impressed me was the way in which the work of the scientists and engineers, which here gets across in practice slowly or not at all, was done there by scientists and manual workers together, and did get across extremely quickly. And these technical achievements, particularly in the mechanical and electrical engineering of the Soviet Union, are of such an impressive nature and are being so rapidly added to that it is easy to see why the scientists there take a very different view of our criticism from that we should have thought they would take. They do not feel themselves to be slaves of a higher power, to be going round under the dictates of the Kremlin. You cannot run a country by orders, but only by having people who do things very largely on their own initiative, and get permission to do them afterwards. I found that in the war, and I am sure that is exactly what happens in the Soviet Union. These people know where they are going, and they each and all have an interest in getting there fast. They do not need orders, but only the most general directive. It is extremely simple, though I do not suppose it is put in quite these terms: "You can do what you like, but you get hell if you do wrong." That atmosphere has a very different effect on different temperaments. On the positive it produces a most terrific spirit of enterprise; on the cautious and lazy it produces complete paralysis; and that acts as a selective process. The opinion I got of the Soviet scientists—the ones I met—is that they were of the positive kind. Certainly Vavilov is.

On the question of plans, I think Lysenko put it in the shortest form: "You must not think that science or thoughts are planned in this country. The tasks are planned. The thoughts are free. You have certain jobs to do. You can think out how these jobs should be done." That is what the Soviet scientists are doing and, of course, in order to get these problems solved, they are obliged to go into fundamental science. But they are also very determined that their science is going to stand on its own feet, and there you get one of the characteristics of what I might call the modern or post-war Soviet science—the tying-in of this formula with the past of Soviet science.

We are apt, because of our total ignorance, to think that there never was any science in the Soviet Union, except for isolated individuals, before the Revolution—I have even written so in my own books. Well, even the scientists in the Soviet Union in the early years did not know how much there was. They have been finding it out ever since. The work, for instance, of Popov in connection with the development of wireless is, I think, both scientifically and practically better than that of Marconi and was certainly earlier, but it is completely unknown outside. The greatest figure in the eighteenth century in physical science, with one possible exception, was Lomonosov, who was certainly a much more thorough and all-round scientist than even such geniuses as Franklin, and who compares well with the late eighteenth century scientists such as Lavoisier; yet outside the Soviet Union we do not know anything about him. I have read some of his works in preparation for an SCR lecture, but I do not think you will find any of them in the English language at all.

They are learning about their cultural past in the Soviet Union, and they are using it to inspire them to add worthily to its achievement. They have a science which is self-generating, which is self-supporting, which has a steady flow of people coming in from the schools and universities, which can create these new ideas. They are well aware of all the work that is being done outside. Where

we go wrong is in not being aware of the work being done there. This is a fact we discuss and we deplore, though not very seriously. One of the reasons for this is obvious. You notice we do not acknowledge a great deal of Soviet work. We do not know anything about Soviet science because we can never read it. It is in Russian, and we cannot read Russian. Vavilov said to me in this connection: "Russian is now one of the major scientific languages in the world, and perhaps it might be a good idea to learn it." I think that is the answer. On the whole, we are going to be the losers, and not they, in the present situation. The output of Soviet scientific work is enormous, and is very rapidly increasing. The Physical Science Section of the Academy is now producing a large volume every ten days, full of meaty papers, and the Americans at least have gone to the trouble of having the whole thing bulk-translated and issued as a periodical for the benefit of their own industry. Sooner or later we will wake up to the fact that Soviet science has arrived. The Soviet Union is a country with a science of its own, and it is not going to bear any dictation from outside; all we do by our denunciations of Soviet works is to work ourselves up into tempers: we shall not have any effect there one way or the other.

FINALLY, the whole of science, as I have said, is tied up with the general development of the country. Science is part of this great movement of new construction. It is no longer reconstruction. Science is something that passionately interests people; it is a thing which is the topic of everyday talk; it is visible in the building, in the new facilities for people's participation, in the great publicity for science in the papers. You get the impression that science is one of the things that people really mind and care about. This is the major lesson I learnt from my visit to the Soviet Union—a lesson I might not have learnt, I think, without it: that this devotion to construction, this devotion to raising standards of living and raising and creating a new culture, is something which we ought to welcome rather than criticise, because it is the greatest security for our own future. This is the guarantee of the peacefulness of Russia, and if we can persuade the rest of the world to be as peaceful towards Russia we may be able to go forward with them in a common enterprise.

QUESTION TIME

Question.—Could Professor Bernal give any indication of team work existing in the Soviet Union among the scientists?

Answer.—All the work, really, is done by team work, but not of a formal kind. It is very characteristic, I think, of the general Russian way of doing things that there is no formal organisation of more than a very few people. For instance, Lysenko's own research group consists of only five people. There are a number of studies in industry that require work in a large number of different places, and comparison of results between groups and a very large number of discussions take place. But my impression is that formal team work other than semi-voluntary team work is much rarer there than I would have expected.

Question.—What proportion of women are doing scientific work in the Soviet Union?

Answer.—I should say, as in everything else in the Soviet Union, a very large proportion. I cannot give you statistics, but I know in the two or three lectures I gave, about half the audience were women. They were all workers in the field. At the Institutes you may just as well have a woman as a man at the head. They really have abolished the distinctions of the sexes as far as active work is concerned, though in domestic life I think the whole set-up is extremely like it is in this country.

Question.—How do advances in science and progress in other ways reach the schools?

Answer.—I am glad you asked that. I meant to say something about the schools, but I did not have time. I had one opportunity of going to a school and trying to find out directly what was being done there. I went particularly to the science classes, and I found that they were right up-to-date in their science. I have some of the recent science text books, which I took as they were being handed out. It was the first day of term. I noted particularly that they had allusions to and pictures of all the latest physical devices—the electron microscope, for instance, which is a fairly recondite thing. I have two pamphlets on it—one at 90 kopecks and the other at 40 kopecks. I am afraid I cannot tell you what that is worth, but it would be less than 1s. or 6d. You could pick them up anywhere. I kept seeing them in every bookshop and stall, and they are very thorough accounts of their subjects. I noticed in the technical museums a very large number of school children obviously

passionately interested, because when we had the guide explaining to us there was a crowd of children listening to what was being said.

The school curriculum gives a high place to science, but not a disproportionate one. I was very interested in the balance between literature, history, and science, which is about equal—one-third of each. There is no doubt that the school system is going to have a most terrific effect, especially now the ten-year school period up to seventeen is universal in the towns and higher education is on such a large scale. At the particular school I saw, I asked how many of the children went on to higher education; I was told it was about 80 per cent., but in the last two years they had all gone on. It will be bound to have an effect on the town population if over 60 per cent. receive higher education up to the age of 21 or 22—not always full time, but at any rate some kind of higher education. It means an enormously wider popular scientific appreciation.

Question.—Could you throw some light on the study of the history of science in the Soviet Union, and say whether there has been collaboration between the natural scientists and the historians about the study of scientific research, and what is known as general history?

Answer.—We had a talk with Professor Koshtoyantz, the Head of the History of Science Department of the Academy, and discussed this very question. There is an extremely lively interest in the history of science, and science is always taught with reference to its history. We have come away with a large number of books on the history of science, but they are all in Russian, and we still have to extract what is in them. If you are interested, I am sure you could be put in touch with historians of science.

Question.—What happened to those of Lysenko's colleagues who ventured to disagree with him?

Answer.—I can tell you something about the ones referred to in the Decree of the Agricultural Academy, because we asked particularly about them in our interview with Vavilov. They are all working in scientific institutes, most of them in the same subjects as they were working in before. Those who are so definitely opposed to Lysenko that they would not in any circumstances work under a Michurinist general direction, are working in different fields. For instance, Dubinin, who is a kind of leader of the Mendelian scientists, is working on the control of insect pests in connection with the new afforestation plan, but he is working on his own and not under the direction of Lysenko. Most of the others are working in their own fields, many of them as part of the Academy; for instance, Orbeli. I mention Orbeli because he was specially referred to by Sir Henry Dale in his letter of resignation from the Academy. Orbeli is a distinguished physiologist, and is one of those people who happen to have a very large number of jobs. He was head of the Biology Section of the Academy, head of the Physiological Society, head of the Military Medical Academy, and six or seven other things. Now he has lost the first of these jobs, but he continues in his other functions, and has taken a very large part in the recent Pavlov celebrations.

Mr. Crowther.—I think the position is, roughly, that whereas before he had twelve important jobs, he now has eleven.

Question.—How does Lysenko's work at the Agricultural Station compare with the Rothamsted experimental work here? Secondly, is all Russian scientific work fully published, and is it accessible to the whole world of science?

Answer.—I am not really competent to answer your question about Rothamsted. Some of the work, such as that on protection against drought and soil science, is very closely related to the Rothamsted work, but I cannot make any very useful comparison between the two. As to the second point, everything that is published is available, but it is unfortunately available only in Russian. For instance, I can give you a very good example. One of the most disputed points in the Lysenko controversy was the turning of 28-chromosomed wheat (durum) into 42-chromosome wheat (vulgar), and this has been attacked here on the ground that Lysenko must have had some of the vulgar wheat mixed up with his other wheat, and when he sowed it one died and the other lived, and that was how the transformation took place. He gave us a detailed account showing how he had done it. It was not one of his experiments, but was done by one of his workers. The sowing had been done grain by grain, and each individual ear was found to contain some seeds, perhaps only two or three, which were different from the other seeds, and these were the vulgar seeds. I asked why he had not published this, and he said he had published it. It is in a number of his journal *Yarovizatsia*. So far as I know there are no numbers of this journal, in Russian or a translation, covering the period in question, available over here. It is not that the information is not available, but the business of getting the journals here and translating them has not been adequately tackled.

Question.—What chances are there of Lysenko's work being made available here?

Answer.—I think more and more will be translated into English in the Soviet Union, but a proper search would be desirable, and in a more reasonable way. I do not know whether it would be possible to get a jury of impartial scientists: there are probably none. But it might be possible to get a fifty-fifty pro- and anti-group to go through the work. Up to the present the reading of Lysenko's works has been done for the most part by people who are violently anti-Lysenko. I notice in the case of other scientists as well as Lysenko that if you try to put down baldly what a person says without any background, the statements appear quite meaningless. But the man who made them had some purpose

in making them, and you have to find out what he meant. That requires more than translation. It is quite a difficult job. The ideal would be to have British biologists working with Lysenko for a year or two, and then coming back to write it all up for us in England, because it is not only a case of English and Russian. The scientific terminology is different, and that is one of the reasons why this enormous amount of misunderstanding has arisen. We just do not know what he has done or what his ideas really are. Although I have read a good many accounts, I did not know half of what the Lysenko case was from anything that has appeared in this country.

Question.—Do you suppose Lysenko knows himself how he gets his results? Both what his opponents have said and what you have said give the same impression to me: he is a marvellous type of person, with an enormous uncultivated field to work in.

Answer.—I am sorry to have given that impression. It is that, I think, but it is more than that. He is constructing—working out—theories of his own. I have mentioned two or three of them. There is this idea of acting on an organism in a particularly unstable state, and he has very shrewd ideas, for instance, as to the effect of a higher or lower temperature. He does not know the detailed mechanism, and one could not know it without doing another kind of research altogether. On plant physiology this is a goldmine, because every one of the effects I saw lends itself to physiological and biochemical research. These effects are obviously produced by certain chemicals moving from one part of an organism to another. By various experiments you could find out what they are, break them down, analyse them, synthesise them, try them out, and so on. There are several hundred man-years of work in that. He is not doing it himself, but other people are doing it in the biochemical laboratories of the Soviet Union. But he is concerned with what you might call naturalistic laws of the kind that are adaptable to the living material. It is a mistake we are apt to make, I think—especially people like myself who are physical scientists—to think that we can take nature and immediately reduce it to simple basic laws dealing with atoms. It is very nice when you can do it, but in the first stages of growth nature is a bit more complicated, and you have to use rather rougher laws, which are not expressible immediately in molecular terms. That, I think, is the work Lysenko is doing.

Question.—With regard to the 28 and 42-chromosome wheat, did the transformed grains breed true?

Answer.—Yes, the transformed wheat bred true, and that was the interesting point. It seems to be in every ordinary way a complete vulgare wheat. I am only just repeating to you what I was told. I do not understand at all how a thing like that would be explained in the ordinary way. All I was saying was that it is not a mixture of seeds. What the mechanism of transformation is I do not know. The experiment was done to make durum wheat into a winter wheat, and it completely failed. They could never make it into a winter wheat. Every effort resulted in producing a vulgare wheat.

Question.—How far is research applied in industry, and how does it compare with our methods of standardisation here?

Answer.—The application of research to industry is extremely intense, and science arises very closely out of industry and ideas coming up from industry. Standardisation has been carried out to an enormous extent: in the building industry there is complete standardisation of all major components over the whole Union. All joists, door frames, and so on are standardised and completely interchangeable, independent of the material. There is a very interesting journal I have come across here on mechanisation, which shows the extent to which they are developing a really scientific approach to industrial design problems. I think myself that in a few years' time they will be well ahead of the Americans in both mechanisation and in the chemical industry.

Question.—Persons hostile to the Soviet Union frequently say that no scientist is allowed to follow a line of research on theories which are—or may be—hostile to communist political theory. It is said, for example, that no research could be done on anti-Lysenko lines in the biological field and no psychological research on Freudian lines. Is this so? One has great difficulty in arguing with people on these matters because of the lack of real knowledge. If it is so, why is it?

Answer.—I think there is no doubt about the two cases you have mentioned as far as State-subsidised research is concerned. The reason is, of course, that they consider scientific theory has a very much larger part to play in science than we are apt to think here. This again is where the history of science comes in. They consider the basic ideas underlying a particular kind of science may determine its actual scientific content, and therefore if from that point of view the basic ideas are wrong, they suspect the whole edifice built on them. That is undoubtedly true of Freudian psychology, which they consider arose out of the bourgeois idea, held at the end of the nineteenth century, that life is essentially a matter of individuals living in a competitive society. They feel that has no proper application to conditions in a socialist society, and so they have an entirely different basic psychological theory. That basic theory is the one which is taught, and on which research is based. I do not want to go over the Lysenko matter again, but it is the same in that field. In physics, where all kinds of basic theories enter in, there is no fixity at all at present. Considerable debate is going on. The essential factor, in their view, is whether a thing works or not, and they will naturally favour a theory which fits in with their view of socialist

development. But it must work in the practical material world as well, and they will only accept an approach that satisfies both. They will criticise the theoretical grounds and see how far the thing can be reformulated. That is the case in physics ; I am afraid I cannot say more : in general there is a definite concentration on all lines of research which are in general conformable with dialectical materialism.

Question.—Arising out of the last question, I should like to ask whether the difference between the biologists of the West and Lysenko and the Michurinists, is regarded as absolute by Lysenko, or whether it has become exaggerated on account of political differences between the two countries which lead the Soviet Union to give their political support to the Lysenko biologists with corresponding abuse of, or at any rate antagonism to, Western genetics. Is it the same on this side, and if the biologists got together without the politicians, would they find a great deal of agreement between themselves?

Answer.—That question really requires quite a long answer, but I think I can say this : in actual detailed accounts of what happens in the breeding of plants and animals, the two views are not as different as they might seem. That was put forward in the Soviet Union by Zavadovsky, who is still continuing his work, by the way, and in this country by Professor Haldane. The view of Lysenko, and the officials' view in the Soviet Union, is that the *approach* is quite different. You might argue, as it was argued at the time by such cautious people as Tycho Brahe, that there was no real difference between the ancient Aristotelian and Ptolemaic systems supported by the Church, and the new views of Copernicus. To Brahe they were merely different ways of describing the same phenomena. But most people at the time felt very violently about one or the other, not so much because they were different in their immediate adequacy, but because they had different starting points and tended in different directions. Over here, if you want to explain ordinary breeding practice, you start with Mendelian laws, and where they don't fit the facts, you add a few such ideas as the inter-connection of genes, plasmogenes, and polygenes, and modifying factors. If you add enough of these operations, almost any facts can be made to fit in with the gene scheme. That is what biologists do here. They start with Mendel, but by the time they are where they are now, his original views seem not very important and rather crude. Naturally they object to the Russians for attacking Mendelism, pointing out that they are attacking the old crude Mendelism, and that now they have got beyond all that, and that by the various improvements they have smoothed all the difficulties out. The Soviet view is that you ought to start with the organism and work inwards, instead of from hypothetical genes outwards, and then work out the contradictions within. They may have reached the same place, but the *starting point* and the *directions of advance* are the real differences.

As to the political side, it is rather the other way round. The Soviet biologists did not take this up to spite the Westerners. They took it up for purely internal reasons. The major question is the practical one of whether they can wait until they get new breeds from pure stocks and selection. They believe, on the basis of practical experience, that Lysenko's methods can improve agriculture far more quickly. That was the internal quarrel, and it had nothing whatever to do with what was going on outside. Now as a result of the announcement of the internal changes, it has been the basis for a big ideological and political attack outside, and that hardens the situation inside and sharpens the whole controversy. But originally it was a strictly internal business of the Soviet Union's. I do not think any compromise in the narrow sense could be achieved, but a wider theory which will include the valuable results of both approaches will undoubtedly be built up. I do not know how long it will take, but I think it would be a good deal quicker if we did not have political differences. I do not think scientists in the Soviet Union will agree to any middle course at the present time.

Question.—Could you tell us something about the way in which Russia has managed to spread the knowledge of science, and also to spread an interest in science? Generally in this country it is assumed that only a very small proportion of the people can and will be interested. It is obvious that a very much larger proportion are interested in Russia. Have they any devices that might profitably be used in this country?

Answer.—I think the main device they use, a very simple one, is the device of socialism. I say that quite seriously, because to the greater number of people in a country like this there is no particular advantage in science and a lot of disadvantage : science and the applications of science in industry mean, on the whole, harder work and unemployment, and you cannot arouse very much enthusiasm for that. On the other hand, on the scientific side there is the feeling that science is for the elite and is vulgarised if more people know about it ; that it is very much better to be able to talk in your own symbols, which your own pals know, and not to have to try to explain it in a way that will certainly spoil some of the finer points. That is an attitude characteristic of any closed society. As for the purely technical problem, they have used three or four different methods. They do it through the schools ; there are a great many popular exhibitions ; and there is the enormous educative activity of the scientists themselves. They work with the people in the factories and fields. The scientist's time is very largely spent in going round helping along with things. He is himself now a man of the people, under a school system that does not draw the scientist from scientific or "educated" families, and he goes back to the people, whom he finds very much easier to talk to than our scientists do.

IDEALISM AND METAPHYSICS IN PSYCHOLOGY

By Brian H. Kirman, M.D., D.P.M.

MANY materialists and others with progressive views turn a blind eye to psychology. This is understandable since the subject was but recently far from being a science and was, indeed, a branch of metaphysics. Even at the present time psychology is used as a weapon of reaction. For those seeking a rational explanation of social phenomena, a question is often incorrectly posed as having (a) an economic basis, or (b) a psychological basis. Thus a strike may be put down to bad pay and conditions (a), or to "psychopaths" among the workers, or possibly to inept handling by foremen and responsible officials (b). If the problem is presented thus, it is obvious that any progressively-minded person will plump for the former presentation and will be less interested in the psychological aspect. It cannot be too strongly emphasised, however, that this "either—or" presentation is wholly misleading and false. Psychological phenomena such as intelligence, interest, enthusiasm, anger, indignation and hatred are as real as weight, speed, volume, friction, heat, and the other physical phenomena familiar to the engineer. Both, however, are attributes of matter, and it is failure to recognise this fact which leads to the "either—or" approach. In all social phenomena, whether strikes, revolutions, or reconstruction, there is an important psychological element. This is recognised by the importance which is attached to correct leadership in all these matters. At the same time this psychological aspect can only be considered as a secondary phenomenon, arising out of the solid material basis provided by economic and social life. Man's psychology, man's consciousness is from the moment of its birth largely directed to and governed by his relations with other men. The form which these relations take is the economics and the social structure of the society in which he lives. Consequently, within a class society, the psychology of a man is not influenced wholly or even primarily by such factors as intelligence, innate capabilities and temperament, position in family, affection of parents, so much as by his social position, the class into which he is born, the means at his disposal, the attitude to him of other classes, and so on.

Psychological phenomena, then, have no existence independent of the economic framework of society which alone brings them into being, any more than a colour can exist independently of an object of which it is an attribute. None the less, just as colours and other physical properties can be studied as separate groups of phenomena, so that there has arisen a whole science dealing with the theory of colour, so psychological properties can be made the subject of a separate study. Every step of this science, however, must be capable of being related to other branches of material science. Apart from its theoretical problems, psychology has, like other sciences, its practical applications in medicine, industry, criminology and, above all, in teaching. In the Soviet Union, after the October revolution, the civil war and the wars of intervention which followed, the tendency was to employ scientists and specialists to carry on with the work of reconstruction, irrespective of their particular views. Thus it was natural that, during this period, Soviet psychology should have been much influenced by orthodox bourgeois psychology, with its predominantly dualist outlook (psycho-physical parallelism—regarding the body and mind as separate entities). It is true that there existed, indeed among bourgeois

schools of psychology, some, such as that of James, which were allegedly materialistic. But, completely divorced from economic considerations by their peculiar and unreal standpoint, these various schools ultimately retreated to an ultra idealist position. Thus the followers of James arrived at a position where they declared that a man was not depressed because he was out of work, cold, hungry, and unwanted by society, but rather because he hung his head, drooped his shoulders, and dragged his feet. Let him but raise his head, throw back his shoulders, and he would be a happy man once more.

It is not surprising, therefore, that Soviet psychology, like other branches of Soviet culture after 32 years of independent development, during which there has grown up a new generation accustomed only to a socialist organisation of society, should demand that its teachers and professors should rid themselves of those vestiges of bourgeois influence which linger in their text-books. It is not only in physics that the problem of inertia bulks large. Psychological inertia is an even greater problem. All those familiar with teaching will realise that much of what is written in any text-book is not the product of the writer's reasoned analysis of the facts, but is slavishly and uncritically copied from some previous volume.

These criticisms were found to apply not only to books written in capitalist countries, but also to the text-book of psychology written by Professor C. R. Rubinstein in Leningrad in 1946. What, however, is refreshing and encouraging in contrast to the bowing down to false gods and worshipping of strange idols which goes on on this side of the "Iron Curtain", is the vigour of the criticism directed against the imperfections in Rubinstein's book, as exemplified by an article on the subject by E. T. Chernakov (1948), in a Soviet philosophical journal.

Chernakov points out that the recent controversies in the field of botany and agricultural science, centred on the names of Michurin and Lysenko, are by no means confined to these sciences, but will lead to a careful re-examination of theory and practice in all the natural sciences. He complains of the eclecticism of Rubinstein—i.e., his tendency to quote various psychological schools, without having the courage to put forward a consistently materialist and dialectical point of view. Rubinstein is inclined to accept second-hand some of the awe and reverence in which figures such as Freud are held in capitalist countries, and does not submit their "verities" to the ruthless criticism which is demanded by Soviet science.

Chernakov criticises Rubinstein for compromising with bourgeois psychology instead of rejecting outright those theories which lack a solid materialist basis. For him there is no room in a Soviet text-book of psychology for the belief that a portion of our mental being is determined by some intrinsic force, and is independent of our social and economic surroundings. In particular he objects to the bouquet handed by Rubinstein to Schmalhausen, whom Chernakov describes as the erstwhile leader of the Mendel-Morganites (i.e., the followers of the orthodox British-American theories of genetics who deny the possibility of the inheritance of acquired characteristics). In particular Chernakov objects to the psychological abstraction of man as though he were quite independent of the society in which he exists, and as though he has the same qualities whether he lives in the new socialist society of the Soviet Union or in the decaying capitalism of the West. Thus Chernakov considers that Rubinstein, like the bourgeois psychologists, adopts the same attitude to man as Weissman to the germ plasm, believing that the values represented are eternal and unchanging.

Chernakov traces Rubinstein's regression to a position of dualism in his definition of the terms "knowledge" and "experience". The former he admits to be simply a reflection in man of the outer world, but for the latter he reserves the claim that it is essentially an expression of the subjective life of man, "a specific manifestation of his individual life". He follows on by claiming that

experience is "first-hand evidence", but ignores altogether the objective source of subjective experience. Having thus successfully split the mind into two parts, one dependent on the outer world and the other not, he goes on to say that consciousness results where the two meet, but attempts to safeguard himself by defining this type of consciousness as something different from what is meant by the ideological use of the word. Particularly objectionable for Chernakov is Rubinstein's long-winded and elaborate description of consciousness "as it were always immersed in the dynamic, not entirely perceived experience which forms a more or less dimly illuminated, variable background from which consciousness comes, never, however, entirely breaking away from it. Every act of consciousness is accompanied by a more or less hollow resonance which it calls forth in lesser perceived experiences—in the same way a more indistinct but very intensive life of not wholly perceived experiences resonates in consciousness". (Page 8.) Chernakov realises that the subtle method of differentiating the ideological (i.e., Marxist) use of the word consciousness has enabled Rubinstein to shake himself free of the rigid scientific limitations imposed on psychology by a literal application of the principles of dialectical materialism, and to escape into the world of idealism untrammelled by mundane, material considerations, a land of fairy make-believe which he can, like Freud, people with as many ogres and strange gods as he pleases.

Rubinstein (P. 67) regrets the tendency visible in Soviet psychology and philosophy to limit the study of the mind to that of consciousness. In this he shows himself to be strongly under the influence of the psycho-analysts, with Freud at their head. He says "the contraction of the psyche to consciousness obliterates the bonds between mental experience and knowledge, between the psychological and ideological, philosophical concept of consciousness".

Chernakov also joins issue with Rubinstein on his view of volition. The latter depicts volition as arising primarily (P. 200) from the action of the interoceptors situated in the depths of the organism—i.e., from sensory endings in the kidney, stomach, heart, lungs, and other internal organs. He points out that the impulses arising from these do not always reach consciousness, and only become conscious in so far as they are related to external objects as conscious desires of impulses. The weakness in Rubinstein's position arises from his failure to emphasise that these interoceptors are just as dependent on the outside world for their activity as any other sense organs—e.g., the eyes. Hunger for example, arises from emptiness of the stomach, a falling of the blood sugar and other bodily changes which are duly registered by the interoceptors. There is thus nothing mysterious or especially primitive about the origin of hunger any more than there is of impulses engendered by the exteroceptors—e.g., the desire to shin up a tree produced by the sight of an escaped tiger. Chernakov also shows that Rubinstein is at fault in not explaining that impulses do not emerge into conscious volition in some unknown and pre-determined manner, but are governed by the whole character, education, and conscious psychology of the individual which in their turn are fashioned by the society in which he lives.

On the basis of this definition of the origin of volition, Rubinstein's elaboration of a theory of feeling follows. As Chernakov points out, this is nothing more than a restatement of James' view that feeling and emotion originate from the state of the viscera, and are not primarily controlled by the outside world. Nothing could be more un-Marxist than this concept, though it has an outward appearance of materialism demonstrating what Chernakov refers to as the equation of the vulgar-materialistic with the idealist-subjective. Chernakov aptly describes James as an expert salesman of his class, and shows that in his attempt to support his theory that the source of our emotions lies within and not without, James relied in large measure upon arguments drawn from psychotic patients. Thus in the insane may be found groundless fears. Also many insane

patients are unafraid in the presence of real danger. Chernakov, however, considers that whereas it was all very well for James to consider the whole world a mental hospital, this is not a proper course for an eminent Soviet professor of psychology. (In fact, Pavlov has shown that it is precisely by means of external stimuli suitably adjusted that there can be produced disease states in which the subject is either inhibited even for stimuli which imperatively demand an immediate response [ignoring of danger], or reacts excessively to even the slightest stimulus [groundless fears]).

Chernakov quotes Stalin as saying "ourself" exists only in so far as external conditions exist, calling forth impressions in "ourself" (I). He then states his own view of the theory of the emotions, and points out that it is possible by means of self-discipline to overcome the emotions—for example, for a man in moments of great trial to continue his usual work—but that this self-discipline does not in fact arise from an alteration in the outward manifestation of his emotions, but is the effect upon him of people, things, books and the like, either at present or in the past (memories)—i.e., the influence of surrounding reality. He shows that life teaches us at every step, not what Professor Rubinstein asserts (following after James), but that our emotions depend upon the actualities of everyday existence.

Chernakov further analyses Rubinstein's definition of will. He quotes him as saying (P. 509) "the starting point of the establishment of will is embedded in impulses—". Further, he illustrates Rubinstein's allegiance to Freud with the following:—"The study of the impulses was developed mainly by Freud who, by this study inscribed a new and original chapter in psychology." (P. 628.) Chernakov then quotes Freud to show that the latter did not, in fact claim any originality in the matter. "Let us hasten to add that psycho-analysis, was not the first to take this step. It is possible to point to famous philosophers as the forerunners, above all to the great thinker, Schopenhauer, whose unconscious "will" can be identified in psycho-analysis with internal impulses." (1923a.) Chernakov shows that Rubinstein's appraisal of Freud thus leads him into a philosophical position identical with that of Schopenhauer. He points out that whereas Rubinstein pays lip service to a rejection of Freud, in point of fact his definition of "impulse", which is basic to the whole of psychology, boils down to exactly the same as that of Freud. Both of them regard the source of the impulse as *within* the organism, and not as something proceeding from the outside world. He quotes parallel passages from the two authors, as follows:—

Freud:—"Against consciousness is posed a whole sum of mental processes as the region of the pre-conscious. A very great part of this process comes from the unconscious, bears the character of its parent and, before being perceived, must be submitted to the censor. The inadmissibility of unconscious thoughts into consciousness is conditioned exclusively by the tendencies included in their content." (1923b.)

Rubinstein:—"Given interoceptors usually remain 'sub-conscious'. Imperception (or inadequate perception) of a given impulse, feeling, action, &c., is conditioned usually by the fact that its perception opposes dynamic tendencies and forces proceeding from that which appears of significance to the individual, including the norms of ideology and social value by which the individual is guided." (P. 11.)

Freud:—"We come to the view that all feelings and relations valued in life, such as sympathy, friendship, trust, &c., are by their genesis connected with sexuality and developed from purely sexual longing, thanks to the weakening of the sexual aim." (1923c.)

Rubenstein:—"It [the sexual impulse-E.Ch.] is more or less deep, and organically enters into all the conscious life of the individual; sexual impulse becomes love, the necessity of man for man is converted into a genuine human need.

The whole world of subtle human feeling, æsthetic and moral—admiration, tenderness, anxiety—is included in it; the whole conscious life of the individual is reflected in it". (P. 628.)

Thus Chernakov is able to show the almost complete unity of view of the two authors on this fundamental question of the all-pervading character of the sex instinct which leads Freud eventually, as clearly stated in his posthumous publication (1949), to a completely idealist position, in which he sees the mysterious life-instinct as the mainspring of all man's endeavour. To leave no doubt about the degree of mysticism implied in his doctrine he equates the Love or Life instinct with the Greek god, Eros. Unfortunately for Freud and for Rubinstein, objective facts (see the Kinsey Report) at all events in capitalist society show, what common sense might have predicted, that individuals with full and normal sexual development also tend to be active socially, and that those who are little developed sexually tend also to be less active in their work and play. This simple, objective observation at once sweeps away any basis that there might have been for Freud's theory that social energy was derived from subtraction from a mysterious inner force which at different times he christened Eros, Libido, or Id. Facts are severe critics. Had Rubinstein relied upon facts instead of upon Freud, he might have fared better.

Pursuing his criticism of Rubinstein's definition of will, Chernakov shows that the professor put himself in the position of Kant, the German philosopher, whose agnosticism and attempts to reconcile idealism with materialism so long dominated European philosophy. For Rubinstein as for Kant, and incidentally Freud, moral is that which contradicts all natural propensities. It will be seen at once how this doctrine lends itself to use by the exploiting class in a class society, and indeed is the basis of all State religions. Since there is, according to this view, a natural conflict between the inner urge and the outer social law, it is clearly the bounden duty of man to subordinate his primitive urges to this higher call from without in the interests of society. This "psychology" thus repeats the cry of the class moralists throughout the ages.

In the past the dictates of the priest were to be obeyed so that power and wealth might accrue to the State and the church. So now, by the same token, psychology is to be made to preach the necessity of sacrifice and the inevitable contradiction between that which is desired and that which is desirable. This teaching is clearly contradictory to the whole of Marxism, which demonstrates that the prime basis of this supposedly natural and eternal contradiction lies in class contradictions, which can be resolved in a classless society. Thus it is only in a class society that the path of duty need be represented as one of constant sacrifice, to be rewarded only in an apocryphal future existence. In a socialist society economy is so ordered that the healthy and normal demand for an immediate reward commensurate with the contribution can be met.

A new text-book by Kornilov, Smirnova, and Teplov (1948), established on the foundation of observed facts, has recently appeared in Moscow. The speedy publication of new text-books, as new knowledge and experience becomes available, is but part of the mass of evidence there is of the Soviet Union's serious concern for scientific truth and integrity.

Sources : Chernakov, E. T. 1948. *Voprosy filosofii*. 3. 301.

Freud, S. a. 1923. *Fundamental Theories in Psychology*. Russian Ed. GIZ. P. 198.

b. 1923. *Op. Cit.* P. 79.

c. 1923. *Methods and Technique of Psychoanalysis*. Russian Ed. GIZ. P. 99.

1949. *An Outline of Psychoanalysis*. London.

Rubinstein, C. R. 1946. *The Foundations of Psychology*. Leningrad.

Stalin, J. V. *Col. Works*. Vol. 1. P. 318. Russian Ed.

THE SETTLEMENT OF LABOUR DISPUTES IN THE USSR

By D. V. Schweitzer

TRANSCRIPT OF A PUBLIC LECTURE DELIVERED FOR THE ALL-UNION
SOCIETY FOR THE DISSEMINATION OF POLITICAL AND SCIENTIFIC
KNOWLEDGE. MOSCOW 1949.

[TRANSLATOR'S NOTE.—Since 1947 there has been an increasing emphasis on civil law in the USSR. The lecture, the main part of which is translated here, shows that this tendency extends to labour law. In Dr. Gsovski's "Soviet Civil Law," published in 1948 by Michigan University, only penal statutes are reproduced in the sources (Vol. 2, pp. 539-550) and he concludes (Vol. 1, p. 805) that "the labour law is to a large extent criminal law". He deals in outline with the subject matter of this lecture (Vol. 1, pp. 803-805). The Soviet lecturer, on the other hand, stresses the civil rights of the worker.—A. K.]

I—THE SETTLEMENT OF LABOUR DISPUTES IN THE RKK (APPRAISEMENT AND CONFLICT COMMISSIONS)

SOVIET LEGISLATION defines in detail the procedure for the trial of labour disputes arising from the infringement of the labour laws, of the terms of the collective contract or of office and factory rules.

All labour disputes are decided either in the RKK or in court or through administrative channels. We shall first dwell on the characteristics of the RKK, where the bulk of these disputes are handled.

Distinctive Features of the Commission

The Appraisal and Conflict Commission (RKK) is a form of special conciliation machinery set up directly on the premises of the plant or institution (or in the shop where there is a union shop committee). The RKK gives audience on equal terms to the representative of the management and the representative of the trade union local. During its 25 years' existence the RKK has fully justified itself as an institution for the rapid and fair settlement of labour disputes.

The special features of the RKK in deciding such disputes are the following:—

1. The RKK is set up in the factory or office (and in the shop in large undertakings) on the actual spot where the dispute arose. The proximity of the RKK to the source of the dispute ensures expeditious consideration of the dispute without excessive loss of time.

2. The RKK consists of representatives of the local trade union and the local management, men thoroughly conversant with the conditions of production and the industrial framework in which the dispute arose. This undoubtedly influences the quality of the consideration of the case since persons familiar with the actual prevailing circumstances and special conditions are the better able to weigh up the case and decide it equitably.

3. Reference to the RKK requires no formalities and the actual hearing of the case is unfettered by elaborate procedural rules.

4. The conciliatory character of the examination of cases in the RKK means that the decision represents the result of the free agreement of both parties. The participation of the union in the settlement of cases is also a distinctive feature.

It sometimes happens that, though the two parties were unable to settle their differences before reference to the RKK, their differences were removed when the management, trade union representative and interested parties ventilated the matter and examined its origin.

In this way the closeness of the RKK to the source of the trouble and the presence of local experts, the informality of the hearing and the emphasis on voluntary conciliation, mark out the RKK and form a firm foundation for its continuance and consolidation.

Subjects Within the Jurisdiction of the RKK

The RKK is competent to settle various labour disputes arising in business undertakings and institutions. Any workman or employee as well as the representative of the management may resort to the RKK in connection with a violation of obligations either by the management or by the worker, contrary to the labour laws, the collective labour contract, or the plant or office rules. Application to the RKK may be made by individual workers, or by groups of workers, or by the trade union local which may refer disputes affecting individual workers or the whole collective to the decision of the RKK. The management is bound, for instance, to resort to the RKK wherever a worker is to be dismissed for unfitness for the job or some deduction is to be made from a worker's pay to make good loss caused to the undertaking by the worker, if he disputes the deduction made by the management on the authority of article 83 of the Code of Labour Laws.

Labour disputes may arise either with reference to the establishment of working conditions for the future (disputes as to the wage norm, wage scale, fixing periods of leave, &c.) or with reference to infringements of labour conditions established by existing law, by the contract, or by office or factory rules (overtime claims, unexpended leave compensation, and so on).

The first group of disputes is known as non-contentious, the second as contentious. The field of activity of the RKK is very wide, notably wider than that of the other tribunals which settle labour disputes. Non-contentious disputes, for example, may not be heard by the courts.

There are, however, some labour disputes which may not be heard by the RKK. All disputes of a non-contentious nature go there, with the exception of those concerned with the conclusion or revision of the conditions of the labour contract. These disputes are at present settled by means of discussions between the higher trade union organs and the corresponding employing organizations and Ministries. Of the contentious disputes, the RKK may not deal with those for which, as we shall see below, a special administrative channel is provided.

The RKK is the exclusive tribunal of first instance for many contentious disputes, e.g., payment of overtime pay, provision of compensations of all kinds, payment for breakage and demurrage, dismissals for unsuitability and for breach of labour discipline, and a number of other disputes specifically provided for in the statute. In the event of such a dispute arising the worker or management is bound to resort in the first instance to the RKK and may not by-pass the RKK and submit his claim to the court. The reason for this procedure must be sought in the peculiar features of the RKK as an on-the-spot organ, possessing the special characteristics already referred to for the correct and expeditious settlement of labour cases. The more complicated cases turning on local circumstances hence find their way to the RKK.

Time Limits for Reference to the Commissions

In dealing with the activity of the RKK it is most important to dwell on the periods fixed for reference to that body. Three separate time limits are fixed by the statute, fourteen days, a month, three months.

The fourteen-day time limit applies to disputes concerning dismissals ; the same time is fixed for reference by the management of disputes over deductions from wages which are contested by the worker.

The period of a month applies to suits for recovery of overtime pay. Other disputes may be referred within three months.

In exceptional circumstances, when the applicant to the RKK establishes the existence of weighty reasons, his suit may be heard although begun after the period of limitation has expired.

What is the significance of these short limitation periods? At one time the periods for reference were much longer. This made it possible to accumulate claims over a long period and then conduct protracted litigation. Procrastination ensued and the quality of decisions suffered. After the lapse of a year or more from the birth of a dispute it is readily imaginable that special difficulties in the settlement of disputes should be created, for example, in a claim for overtime pay or for restoration to work. After such a time it is difficult to check the real facts and the work of the court is impeded.

The shortened terms of limitation were therefore adopted in 1928 and still govern proceedings. Decisions under this regime are both speedy and efficient.

It is important to note that the RKK is bound to settle a case within three days of the filing of the plaint, when the circumstances leading to the dispute are still fresh in memory and may easily be verified and established.

The practice of hearings in the RKK has justified itself in the course of the last 20 years under the short-limitation system and has proved excellent from the point of view of all litigants in comparison with the former long-term system.

Procedure in Hearings by the RKK

As we have seen, the RKK is a form of conciliation machinery composed of representatives of the management and of the local trade union committee. This means that each party taking part in a decision enjoys identical rights. Before the consideration of a case begins the worker involved may file a reasoned objection against the representatives of the management or the trade union local.

The hearing of a case referred to the RKK consists in the examination of the worker's plaint, in which his claim is set forth. If the contents of this plaint raise doubts on one side or the other and the case appears doubtful without further testimony it is the duty of the RKK to verify the claim by studying the relevant documents or by the examination of witnesses, and where absolutely necessary, by consideration of expert testimony (e.g. testing a workman's competence, or the nature of the work performed).

After the members of the Commission have heard and verified the statements of the parties making the claim and determined what the true circumstances are, they proceed to deliver their ruling. Such ruling may only be given with the consent of both sides. Otherwise it remains inoperative. In order to assure the independence of the local trade union representative in the RKK the statute does not allow any such representative to be dismissed without the consent of the next highest trade union body, e.g., district committee or central committee.

No person enjoys any special privilege in the RKK, since the principle of parity is the basis of all its activities. Hence it is immaterial how many people appear as representatives of either side. Each side has one vote and there is no majority decision.

The interested party must ascertain the date of the next session of the RKK which he may attend, file his plaint, and secure the necessary proofs and confirmations of his claims.

The management is responsible for proceedings in the RKK including the supply to the interested parties of a copy of the ruling.

Enforcement of RKK Rulings

Since the decision of the RKK is given by consent, it is put into execution voluntarily. It is put into effect immediately unless a period is fixed in the ruling. Cases do occur in which the management refuses to abide by the ruling, especially where sums of money are awarded. The judgment must then be put into strict execution. The following rules apply: In order to enforce rulings that sums of money be refunded it is necessary to apply to the district or central committee of the trade union to secure the appropriate execution certificate, the Form A certificate, as it is called. This certificate has the force of a warrant of execution issued by a court. On receipt of the certificate on Form A application may be made for judicial execution of the ruling. If the sum is not refunded it is necessary to apply to the same trade union organ to obtain a certificate on Form B. On receiving this a plaint must be filed in the People's Court which summons both parties to a judicial hearing to have the amount of the claim assessed and refunded.

Before issuing the certificates on Form A or B the trade union verifies the legality of the ruling of the RKK. Only then may the certificate for compulsory execution be issued.

Appeals Against RKK Rulings

Decisions of the RKK are final and may only be appealed against or challenged by procuratorial action. A decision may be annulled wherever it was delivered in violation of the statute or in clear contradiction of the facts of the case. Complaints through procuratorial channels are filed with the next higher trade union organ. The procurator may also challenge a ruling on his own initiative.

A fourteen-day term is fixed for appeals against RKK rulings, running from the moment of delivery to the interested party of a copy of the ruling. The trade union organs in examining the appeal proceed on the basis of the rules governing the settlement of labour disputes in the RKK, check the correctness of the application of the labour statute in the decision and in this way decide whether to uphold or dismiss the appeal. If the appeal is dismissed the persons interested may resort to still higher instances, right up to the Central Committee of the trade union.

Appeals from decisions of the shop commission are in the first instance taken to the commission for the whole factory, which is competent to annul the shop ruling and give a new ruling in the case. From this further appeals may then be taken as outlined above.

Where a decision of the RKK is annulled the case may, at the option of the interested party, be again referred to the RKK or to the People's Court, within the fourteen-day term fixed for appeal.

In recent years the All-Union Central Trade Union Council and the Central Trade Union Committee have given a number of important rulings designed to improve the operations of the RKK, to which special importance is attributed in the cause of securing the interests of production and protecting and guaranteeing the rights of the workers.

II—SETTLEMENT OF LABOUR DISPUTES IN THE PEOPLE'S COURT

Labour disputes may also be settled in the People's Court. The Constitution of the USSR and the Judiciary Law of the USSR provide a firm basis for the just and legal decision of civil labour disputes in the courts. Our courts,

constructed on the foundation of socialist democracy, carry out their judicial functions with the aims of protecting not only the interests of the Soviet State but also the rights and interests of citizens, guaranteed by the Constitution. The function of the judicature as laid down in the Judiciary Law has as its object defence against every kind of infringement of the political, industrial, domiciliary and other personal and proprietary rights and interests of citizens, guaranteed by the Constitution of the USSR and the Constitutions of the member-republics of the Union.

Besides these general guarantees which assure the settlement of all civil cases in conformity with law, special rules are laid down for judicial proceedings in cases of labour disputes. Besides the usual principles applying to these courts our legislation provides special rules which create a characteristic procedure for the settlement of labour disputes in court, as follows :—

1. There is no necessity to file a written plaint in court in the case of a labour dispute. Any workman or employee has a right to make an oral claim, and the People's Judge drafts a document on the basis of the oral declaration in which the latter is reduced to written form. This provides preferential conditions for those workers who are not conversant with the statutes or cannot themselves draft a plaint.

2. As is well known, it is normally necessary to pay a State impost and certain other legal charges when filing a civil plaint. Workers and employees resorting to the court in a labour case are exempted from this impost and the other costs. This means that the conduct of the case is attended with no material outlay for the plaintiff. At the same time the trade union provides legal aid to members of the union without charge.

3. All labour cases, whatever the amount involved, may be heard in the People's Court, so that the court is usually close to the place where the dispute arose.

4. Shortened periods of limitation for resort to the People's Court in labour matters are fixed, fourteen days or three months. The court is bound to try the case within five days of the filing of the plaint.

5. To overcome the risk of dilatory proceedings where the representatives of the management fail to appear, the statute requires the court to insist on the personal appearance of the defendant, in contrast to the general rule, and in case this summons is ignored to have it enforced by the militia.

6. The rulings of People's Courts, and of appeal tribunals, on labour matters must be sent by the court to the interested parties within three days of the date of the ruling.

7. As an exception to the general rule in labour disputes there is immediate enforcement of judgment even where the defendant is a government organization.

8. The ruling of a court that a worker shall recover any sum not in excess of a month's pay is enforced immediately even where the other party is appealing against the decision.

9. Where an appeal tribunal is considering a labour case and the case has been fully ventilated in the lower court but an improper ruling given, the court may give a new ruling, and not merely annul the ruling of the lower court, without remitting the case for a re-hearing in the People's Court. In this way the total delay in litigation is reduced.

10. If the ruling of a court in a labour case is annulled in the course of procuratorial review after the worker or employee has received the sum adjudged, repayment of the amount so adjudged is not generally required. It may be recovered from him only in exceptional cases, e.g., where he had recovered it with the aid of false documents or perjured testimony.

In this way the rules for the consideration of civil labour cases in court are aimed at eliminating delays, simplifying the task of settlement, facilitating

resort to the court and thus helping workers and employees to protect their labour rights.

There are also special features relating to the reference of labour cases to the court. As we have said above, the court may not entertain non-contentious disputes which concern the fixing of conditions of work for the future. Many non-contentious disputes must be first started in the RKK. Where the parties fail to agree in the RKK or the procurators annul the decision of the RKK, the court may try such cases. In other cases the party has a choice of tribunal.

III—ADMINISTRATIVE PROCEEDINGS IN LABOUR MATTERS

The court is not competent to settle certain disputes reserved for administrative channels. The great bulk of labour cases are settled in the RKK or the courts. A special administrative procedure, however, is established for a certain prescribed class of cases. In these cases a complaint of violation of labour rights is referred through the superior official to administrative channels. No resort to the court or RKK is possible.

This special procedure concerns disputes involving responsible officials who fall within a carefully catalogued list of posts, men enjoying the right to engage and discharge, selected workers. The special procedure must be used in cases concerning dismissal or the imposition of disciplinary penalties. This special procedure is also followed in such cases in appeals by workmen in a number of branches of the national economy where there are special disciplinary regulations, e.g., on the railways or in water transport.

These arrangements are recognized as exceptional, and arbitrary extension of the categories of worker concerned is prohibited.

Definite rules and limitation periods are established for the hearing of these disputes in administrative proceedings. Where a dispute of a nature other than those mentioned above arises, these special workers are not deprived of the right to proceed in the ordinary courts. Thus a worker enjoying the power to hire and fire is entitled to resort to the court to recover his wages or to amend the formula of his dismissal. The procurators follow closely the observance of the administrative rules for the settlement of labour disputes and the observance of the law relating to the use of the labour of the groups of workers referred to.

IV—PROCURATORIAL SUPERVISION OF THE PROPER SETTLEMENT OF LABOUR DISPUTES

The Soviet procuratorship was founded in 1922 on the initiative of V.I. Lenin. On it is imposed the duty of supervising the strict and unwavering observance of the statutes by all institutions, organisations, and persons. One of the most important tasks facing the organs of the procuratorship is the duty of ensuring the strict observance of the labour laws. This work is performed in various ways. All violations of statutes in factories and establishments are reported to the procurators in the course of their general supervision, and there is judicial supervision of the proper settlement of criminal and civil cases.

The rights and duties of the procurators in performing their tasks are numerous and various. The procurator is empowered to begin a civil case and appear in cases already begun, either on the request of the court or on his own initiative. When participating in labour cases the procurator is vigilant for strict compliance with the statutes and decrees in labour matters. The procurator challenges unsound rulings and decisions in the next highest judicial instance. He also supervises the prompt and lawful enforcement of rulings in labour matters. He also challenges such RKK rulings as are incorrect

in law. If he reveals a criminal violation of the labour laws he sees that the culprits incur criminal or disciplinary responsibility. There are a number of articles in the criminal codes of the member-republics which provide for the responsibility of managements for the infringement of the labour laws or of the collective contract.

V—LABOUR DISPUTES CONCERNING DISMISSALS

Labour disputes over dismissals form one of the most important groups of this kind, and deserve our special attention.

The liquidation of unemployment in our country, achieved as early as the period of the first Stalin Five Year Plan, radically altered the nature and frequency of these disputes. We no longer see in the RKK or the courts so many cases for the restoration to their jobs of persons unlawfully dismissed as we formerly did. The possibility of finding work suitable to the worker's skill and choice, and the increased legality in the conduct of institutions and undertakings, has undoubtedly had its effect in reducing the number of such disputes and mitigating their acuteness.

It would, however, be a mistake to ignore this type of case completely; though of reduced significance it still has some importance. Even under present conditions the finding of suitable employment may be attended by the loss of a certain amount of time. The reasons for dismissal are also important, as entered in the employment book, in dismissal orders and in references, &c., and the payment of the compensation legally due in most cases for loss of work on the change-over.

The fundamental issue raised in connection with such cases is the relation of dismissals to the enforcement of the constitutional right to work (Art. 118 of the Constitution of the USSR). This right to work is not limited to the provision of guaranteed employment but extends to the stability and integrity of the laws regulating conditions of work. Every citizen who goes to work relies on this. At the same time the management is entitled to count on the worker's not quitting his work without sufficient lawful justification.

There are still occasions when the rules concerning dismissals are infringed by individual managers, and cases of unlawful transfer of workers to other jobs, just as there are cases where the workers or employees violate labour contracts. Within this category fall cases where workers seek restoration to their jobs or complain of unlawful dismissal, disputes over compensation for loss of working-time due to unlawful dismissals, payment of relief for the period between jobs, disputes over improper formulation of the grounds of dismissal in the employment books and references, and so on.

Labour disputes over dismissals are generally settled in the RKK or in the People's Court, except in those cases involving special workers, who, as we have seen, must proceed through administrative channels.

Where the cause of dismissal is either unsuitability for the work (Art. 47 para V. of the Labour Code), or infringement of labour discipline (ibid : para. G), the case must initially be taken to the RKK. If the parties remain unreconciled, or a higher trade union instance annuls an improper ruling by the RKK, the dispute may be referred to the People's Court for settlement.

All other disputes over dismissals, whatever the cause, may be referred, at the option of the worker, either to the RKK or direct to the People's Court.

With the aim of protecting the rights and interests of workers and employees the law requires the management, before issuing a dismissal order for incompetence for the work, first to consult the RKK as to the permissibility of such a step.

In settling disputes based on unlawful dismissals the courts and the RKK scrupulously verify the adequacy of the grounds for dismissal and the correctness of the application of the statutes which protect the rights of various

groups of workers, e.g., expectant and nursing mothers, officers in the reserve, and so on. Thus an expectant mother can only be discharged on the special authority of a labour protection inspector or of the governing body of the district trade union; if she is discharged in any other way the court must restore her to work.

After the promulgation of the decree of the Presidium of the Supreme Soviet of the USSR dated June 26, 1940, under which workers must not leave their employment without the consent of the management, a new class of cases grew up in the People's Courts, in which workers sought release from work unilaterally. Such release may be demanded, for example, where the worker is registered for a course at a higher educational institute or a technical secondary institute. Old-age pensioners (men over 60, women over 55) are among other instances of persons entitled to demand their release from work.

If the management refuses release in such a case the worker may go to the RKK or to court. Where the consent of the management is required the only channel is the administrative channel.

Two weeks' pay is usually granted to cover the loss of time on a change of employment, and disputes may arise if this is denied.

This two weeks' pay is not provided in all cases of dismissal but only where staff is reduced, an enterprise is wound up, there is a stoppage of work for more than a month, or a worker is unsuitable for the work or refuses to accept another job or go to another place of employment (except in the case of transfers carried out by Ministers of the USSR under the Decree of October 19, 1940).

Where dismissal is caused by reduction of staff, winding up of the enterprise, stoppage of work or unsuitability, as above described, the change-over pay is only due if the management failed to give two weeks' notice to the worker.

Where a dismissal is unlawful claims are sometimes made for the resultant loss of working time. According to a regulation of the Council of National Commissars of the USSR, of the Central Committee of the Union Communist Party (B), and of the All-Union Central Council of Trade Unions, of December 28, 1938, payment for loss of time is limited to a period of 20 days. Where workers are away from work as a result of criminal proceedings and are acquitted or the conviction quashed a longer term of payment is allowed. Dismissed men must act promptly in applying for payments.

While on the subject of dismissals we must allude to disputes over the formulation of the dismissal as entered in the employment book and so on. Soviet legislation forbids the entry of the grounds of dismissal in such a way as to slander the worker. The true cause of discharge must be stated and the statutory form followed.

Thus, for example, a worker dismissed for ineptitude for the work required of him, is entitled to demand that the entry in his employment book be made by reference to Article 47, para. V, of the Labour Code or that the formula stated in that paragraph be reproduced. No distortion or aggravation of the formula as prescribed by law is permissible.

Disputes concerned with improper formulations of the causes of discharge may at the option of the dismissed man, be referred either to the RKK or to the court.

D. V. Schweitzer—TRANSLATED BY A. KIRALFY.

N. Y. MARR AND MATERIALISM IN LINGUISTICS

By Professor G. P. Serdyuchenko

DOCTOR OF PHILOLOGICAL SCIENCES

*Lecture given for the All-Union Society for the Dissemination of Political and
Scientific Knowledge. Moscow, April, 1949*

SOVIET LINGUISTICS, closely linked with practical work in the development of written national languages and languages as a whole throughout the Soviet Union, are a militant sector of theoretical and scientific work in the USSR. It is here relevant to recall the brilliant work of Nikolai Yakovlevich Marr, founder of the Soviet school of philology. "The science of language can less than any other be treated as though it were not a primary necessity to the theoretical front of Socialist construction. In itself, language has always been, and is, a mighty weapon in the hands of the man who has a skilful mastery of it. Language is called upon to become an even mightier, one might almost say a miraculous weapon in the hands of the builders of a new world".*

The successes of Soviet philology are very closely bound up with the work of Academician N. Y. Marr, outstanding scientist and communist. His name ranks with that of our outstanding scientists of recent decades—Mendeleyev, Pavlov, Karpinsky, Michurin, Williams, Dokuchayev, Tsiolkovsky and others. Academician Marr rendered an outstanding service to Soviet science. He developed a new science of language based on dialectical and historical materialism. He worked out a general theory of philology diametrically opposed to bourgeois idealist philology. On this basis he fought consistently against bourgeois philology and firmly exposed the racial Indo-European theory of bourgeois linguistics. N. Y. Marr carefully and painstakingly studied the works of the founders of Marxism-Leninism and their teachings on society, even when he was already a leading Soviet and world scientist.

The mastery he achieved helped Marr, a product of the old philological school, to free himself from the "scientific milieu founded and formed by the bourgeoisie", which was hampering his progress. For nearly half a century, Academician Marr, working on innumerable linguistic facts, implacably demolished the world outlook current among bourgeois idealist philologists, on the basis of facts he himself had learnt.

It was only after the October Revolution, however, that he broke decisively with traditional philology. We recall N. Y. Marr's speech at the 16th Congress of the Communist Party of the Soviet Union (B), in which Marr affirmed his standpoint. "In the conditions of complete freedom which Soviet power gives science, by helping the boldest and most audacious scientific research within the scope of a really materialist world outlook, I tried, with new scientific personnel (communists and non-Party co-workers), to develop and continue the theoretical study of language. Having realised apoliticalness to be a fiction . . . I stand for the clear general line of proletarian scientific theory and for the general line of the Communist Party." This statement refutes the fanciful assertions that Marr was an "accidental" Marxist and that it was an "accidental" occurrence that Marr's methods coincided with dialectical materialism.

Since he himself was not neutral, Marr subjected all the fundamentals of the old philology to pointed and devastating criticism. He exposed its dependence on racist ideology and the colonial policy of bourgeois States.

* N. Y. Marr Selected Works, Volume 1, p. 277.

He regarded the old and the Soviet viewpoints in science as irreconcilable. The expression of this viewpoint can be found in his creation of a new science of language.

As far back as 1925, Marr wrote, in an article *On the origins of language*: "There can be no talk of reconciliation in matters of principle between the old and the new theories unless the Indo-European gives up its fundamental principles." And he also added: "I regard the attempt made by some of my not very numerous pupils, and particularly of my followers, to bridge this gap as being more pernicious than the desire of the great majority of Indo-European linguists to ignore Japhetic philology entirely."* Without denying the considerable services rendered by the Indo-European philologists in the history of science, especially the factual material they accumulated, Academician Marr quite correctly asserted that "Indo-European linguistics are one flesh and blood with decaying bourgeois society, built on the enslavement by the European nations of the peoples of the East through their murderous colonial policy".†

Knowing that his theories were a challenge to old scientific ideas, Marr at the same time asked himself a question: "What is the source of such a fantastic lack of understanding of the Japhetic theory?", and after careful thought, himself replied: "I knew that there were a good many reasons," he wrote in 1928 in his *Summing-up of the Spring Expedition to Abkhazia*, "but," he continued, "I was interested in the primary source. During my trip abroad thoughts about this primary source were very much in the forefront of my mind. I saw for myself that people from a different social world found it difficult wholly to comprehend our thoughts clearly. As clearly as under a microscope it became evident in fact, that all theoretical learning, even language study, is the child of a particular society."‡

What is Language?

MARR knew well the classic definitions of language, its inter-relationship with thought, the point made that language development has been determined by the development of the forces of production and production relations in the history of human society. His understanding can be judged by such works as *Marx and Problems of Language*; *Language and Thought*; *The Udmurt Language and the Linguistic Approach of the Japhetic Theory*; and other works.

Marr defined language in the following terms: "Language is a part of the superstructure of society, as socially valuable as painting and the arts in general."§ Expanding this further, Marr wrote in his work *The Japhetic Theory*: "Mankind created its language in the labour process, in definite social conditions and will re-create it with the coming of really new social forms of life and usage, in accordance with the new thought which will grow up in such conditions . . . The roots of inherited speech are not to be found in external nature, nor within us, in our physical nature, but in society . . . Society inherits, preserves or transforms its language into new forms, changes its aspect and absorbs it into the new social system".**

Marr's characterisation of language was "a socially important feature". His lecture on *Language*, read to students of the Eastern faculty of the Azerbaijan Lenin State University in May, 1927, gives his opinions in concentrated form: "Language is a weapon of communication, which arose during the labour process, or, more correctly, during the creation of human culture. Language was created by the human collective in the same way as were the first monu-

* N. Y. Marr Selected Works, Volume 1, p. 219.

† *ibid*, Volume 3, p. 1.

‡ *Izvestia Akademii Nauk-otdelenie gumanitarnikh nauk*, No. 8-10, 1928, p. 548.

§ *ibid*, Volume 2, pp. 25 and 107.

** *ibid*, Volume 2, pp. 25 and 107.

ments to human culture . . . and as, in the later stages of human society, the collective created the arts, the epos, the dance, singing and music. Language reflects in itself all the paths and stages of the development of material culture, part of the super-structure of society . . .".*

The Origins of Language

UNLIKE various representatives of the "sociological" trend in bourgeois linguistics, N. Y. Marr not only took into account the social factor in the development of language, but also always put language in its right place from the materialist standpoint. He considered the question of the origin of language as one of the most important primary questions in philology. Bourgeois scientists are afraid to stand on the firm soil of history in solving the problem of the origin of language. To F. de Saussure, who headed the foreign "sociological" school, it seemed, for example, that "the interference of history only distracted the linguist from his path", whilst E. Sepir, the American linguist, who followed in de Saussure's footsteps, ironically left the solution of the problem of the origin of language to "philosophers and belles-lettrists". In contradistinction to idealist philologists, Marr asserted that "without interest in the origin of language there can be no linguistics. All study of language presupposes some positive attitude to this question, some concept as to the rise of language, and only when this is so can specialist basic study of single languages become fruitful."† He dated the rise of spoken language as relating to the epoch when man first made tools. He made this point in a number of articles on *The Origin of Language*; *Why it is Difficult to Become a Theorist in Linguistics*; and so on. The appearance and wide use in human intercourse of spoken language was preceded by sign language, kinetic speech, as a means of intercourse between people at the very earliest stage of their social-labour development.

At the same time Marr did not deny the existence, side by side with sign language, of single elements of spoken language which were not yet a system of language. Developing this viewpoint further, Marr noted that spoken language grew up in the period when there was a complex social system with a collective in process of organisation . . . when man was already at a high stage of mental development. Man had by that time mastered to perfection sign language, which entirely satisfied the needs of inter-communication both for the community and the individual within that community. Kinetic language answered fully to the quality and level of mental development of mankind in early epochs both technically and ideologically."‡ Spoken language marked a new stage in the development of social man.

In advancing this viewpoint Marr stressed that analysis of sound-speech and also the preservation, in various languages of the world, of traces of the most ancient forms of speech and rich and varied ethnographic and anthropological material, made it possible to assert that sound-speech had replaced sign language or kinetic speech. In the last years of his life N. Y. Marr inclined more and more to recognition of the considerable part played by sound even in the use of kinetic speech.

Thought and Language

IN CONTRADISTINCTION to bourgeois scientists, Marr considered that: "Thought and language are indissoluble" and that "when they arose, they arose simultaneously". "Thought and language are brother and sister, children of one and the same parents—of production and of the social structure," wrote Marr in the preface to the Russian translation of Levy-Brule's book

* *ibid*, Volume 2, p. 127.

† *ibid*, Volume 2, p. 69.

‡ *ibid*, Volume 2, p. 129.

Primitive Thought. He considered the problem of thought to be "one of the greatest, if not the greatest, theoretical problem in the world since the roots of thought are to be found not in thought itself and not in nature, but in the material basis, as dialectical materialism holds"; "the leap from the animal herd into human society is connected with the problem of thought." For this reason the problem of thought and how thought arose is one very closely connected with the problem of language. Marr considered that it was a "specialised subject of study" not only for philosophers and psychologists but for philologists also. That is why the institute he founded is called the Institute of Language and Thought.

In exposing the formalist nature of Indo-European philology, Marr wrote, "The old science of language rightly excluded thought as being outside its competence, since language was being studied apart from thought. This teaching used phonetic laws (the development of sound) but no laws of semantics (the laws of the development of one meaning or another, the laws for comprehending speech and words). The study of the meanings of words had no ideological basis."* He justly condemned specialists of the old school for studying language from the phonic side alone, ignoring ideological aspects.

In accordance with Marxist-Leninist teaching on the unity of language and thought, Marr stressed their close inter-relationship, their dialectical unity throughout the history of the development of human speech. The unity of language and thought, as a unity of form and content, permeates all human speech and its individual elements. He categorically objected to the assertion that the relationship between sound and meaning is arbitrary. Even a phoneme [a spoken-language speech-sound unit] is a "socially-matured sound".

Semantics; Morphology; Syntax

IN WORKING OUT problems of the history of language, Marr worked out most important laws in the development of the meaning of words and, in particular, the law of functional semantics and the law by which a given meaning changed into its opposite (the polarisation of meaning). He cited numerous examples to show these laws in operation. He pointed out that, in different historical periods, the substitution of a new implement for an old one in the same production process led to new meanings being given to the original words in use, e.g., the name of the stone axe passed to the iron axe, the name of the acorn as a foodstuff was passed on to bread and so on.

In his brilliant works *Language and Thought* and *An Approach to Semantic Paleontology in the Languages of the non-Japhetic Systems*, Marr cites a number of outstanding examples showing how the fundamental law of dialectics, the unity of opposites, is to be seen in the development of word-meanings. He studied first and foremost the history of meaning, semantics, linking it with the history of material culture† and the history of social forms through the intermediary of the history of human thought. "In its primary stage thought is the collective comprehension of collective production with collective weapons and production-relations: language is the collective expression of collective comprehension, depending on the technique of thought and the world outlook for its formulation and scope."‡

Marr checked his language material against all the historical sources available to science, using in the main monuments of material culture. He analysed the development of meaning in language in indissoluble connection with the

* *ibid.*, Volume 3, p. 104.

† NOTE.—The term "material culture" is used in the USSR by sociologists and other scientists to denote objects such as coins, pottery, textiles, buildings, monuments, and so on.

‡ *ibid.*, Volume 2, p. 112.

development of the formal side of language, its structure (syntax and morphology) and physiological sound formation. "Formal morphology," he wrote, "is preceded by ideological morphology, the building not only of phrases, associated with a definite order in the distribution of one meaning or another, but also the building of words. In the building of words, one element is either used by other elements for clearer understanding or the element is made more complex, acting as a definer for greater accuracy in understanding."*

Marr set himself the important and interesting task of solving the problem of the historical development of the formal side of language and linking it with "society and production". He studied the birth of varied grammatical categories from that ancient epoch when human spoken language was just beginning. He united in one neat whole the various aspects of language which had been artificially separated one from another—phonetics, morphology, syntax, lexicography, and semantics (the science of the meaning of words). He bridged the gulf between historical and contemporary grammar, a gulf which found its fullest expression in the works of the reactionary "sociological" school of the Swiss French linguist de Saussure.

Starting at the very birth of sound language and concluding with the highly-developed national languages, Marr established the decisive role of syntax, the most essential aspect of sound-language, in relation to which morphology was only the technique, as phonetics are the technique for morphology. "Syntax stands out precisely because in it ideology and technique are as yet indissoluble".† The most recent works by Academician Meshchaninov, *Clauses and Parts of Speech*, and *The Verb*, develop this idea further.

Stadial Development of Language

EVALUATING not only the evolutionary processes in the development of the languages of the world, but also dealing with the radical changes that occurred, Marr worked out his theory of the stadial (stage) development of languages; he understood this to mean a qualitative change in the whole structure of a language, depending on fundamental advances in the development of the productive forces and production relations in the history of mankind.

Marr considered the question of the closeness of the connections between the development of a language and social and economic factors to have been incontrovertibly settled. He strove to examine over an extended historical period "the dynamics of sound-speech" and the historical development of grammatical lexical forms of language as a whole.

Marr raised the question of the stadial development of language in 1923 in his book *The Indo-European Languages of the Mediterranean*. He asserted that "the Indo-European languages of the Mediterranean never and nowhere appeared with any sort of particular language-material which might stem from some racially-specific family of languages and even less from some racially specific archetypal language".‡ In the same discussion he pointed out that "the Indo-European languages belong to a specific family, but not to a racial one. Rather are they the product of a particular stage, more complex and cross-bred, produced by an upheaval in society resulting from new forms of production manifestly connected with the discovery of metals and their extensive use in economy . . . The Indo-European family of languages is the typical creation of new economic and social conditions".§

Some time later Marr connected the various systems of building sound-language with changes in social thought, changes which arose with changed economic systems and the social structures corresponding to them. He put

* *ibid*, Volume 2, p. 132.

† *ibid*, Volume 5, p. 462.

‡ *ibid*, Volume 1, p. 185.

§ *ibid*, Volume 1, p. 185.

forward the idea of an inter-relationship of changes which linked social and economic formations with the different structures of thought and sound-language.

On October 27th, 1928, N. Y. Marr lectured at the Communist Academy, in Moscow on *Current Problems and Tasks of the Japhetic Theory*. He devoted a considerable part of this lecture to the theory of the stadial development of the languages of the world. In this lecture he also set out the main lines of development of sound-language, although he did not consider the problem finally settled, and insisted on its being checked and re-checked. "Changes in thought," he pointed out, "tally with three systems in the building of sound-language arising from different economic systems and the corresponding social structures :—

1. *Primitive Communism*, with a synthetic speech structure, the multi-semanticism of words and no distinctions between basic and extended meanings ;

2. *A social structure based on the merging of differing types of economy*, with social division of labour, i.e., the division of society into crafts, the stratification of a unified society into production and technological groups, constituting primal factory forms. Language-structure becomes concomitant with these new groups and begins to develop parts of speech. A sentence begins to consist of different clauses, and clauses are composed of different parts. Other developments lead to the growth of various functional words which later are transformed into morphological elements. The basic meanings of words begin to vary, and extended meanings grow up side by side with the basic meanings ;

3. *Hierarchic or class society*, with technological division of labour, and with an inflected morphology.*

Marr objected strongly to the traditional concept of the development of sound-languages as "a biological process". "The very process of the development of sound -language does not itself constitute a multiplication but a unification of languages, increasing with every stage of the economic development of mankind."† Marr drew attention to the fact that the existence of hundreds of languages, over a thousand, leads even scientists to prostrate themselves, but as he rightly pointed out, this multiplicity is itself the result of unification. Earlier there had been an even greater number of languages, less complete and less adapted to the accurate use of words. "In the same way as mankind is moving from multiplicity towards a common world economy and a single common social order, along the line of the creative efforts of the labouring masses, so language is moving in gigantic strides from multiplicity towards a single world language"‡

Marr did not complete his formulations on the stadial development of languages but, as has been rightly noted by Academician Meshchaninov, this formulation sharply differentiates Soviet linguistics from foreign linguistics, in which attention is mainly paid to the evolutionary changes in languages and primarily to changes in phonetics and morphology. In formulating his concept of stadial development, Marr demolished the bourgeois philologists' un-historical and metaphysical concept of the development of language. This concept is founded upon the assumption of the past existence of archetypal languages. The gradual evolutionary changes in these languages are said to have resulted in the development of the different languages and their "families" existing to-day, these languages being sharply isolated one from the other, as were their archetypal ancestors, and reflecting in their structure the biological and psychical peculiarities of one race or another.

* *ibid*, Volume 3, pp. 70-71.

† *ibid*, Volume 3, p. 171.

‡ *ibid* Volume 2, p. 135

The Value of Different Languages

THE DEVELOPMENT of all the languages in the world, according to Marr, reflects one and the same set of social laws, determined by the unity of the social-historical process. As a result of this concept, Marr requires that both highly-developed and backward languages be taken into account when a theory of world philology is being formulated. Objecting strongly to the assertions of the old Indo-European school of philology on the existence of racially-isolated "pure" and homogeneous tribal languages, he stressed that the crossing and fusing of tribal languages and dialects, reflecting the actual course of human history, has played an outstanding role in language-creation.

While bourgeois theories on language derived from the study of a not very large group of Indo-European languages, Marr embraced written and unwritten languages, languages with little writing, the languages of great and small peoples, dead and living languages, the richly-developed languages of nations and the patois of intra-national groupings and of tribes backward in development, and considered all of them valuable sources in the building of the Soviet science of language. A resolute enemy of cosmopolitanism, he stressed the need for taking into account the peculiarities of each of the languages of the world, and for thorough and profound study of the actual system of each language. "The only teaching that can be considered the science of language is that which takes into account the peculiarities of all the languages in the world, and which not only designates to each its place among them all, but also delineates the paths and limits along and within which specialised work on every language should be carried out . . ."* Thus Marr stands resolutely against traditional bourgeois comparativism, which, failing to take into account the peculiarities of the languages and literature of the world, has become the best-loved method of the "cosmopolitan comparativists".

Marr did not deny the role and importance of the comparative-historical method in the study of languages. In his opinion, however, there was a big difference between his concept of this method and the usual method used in old comparative philology. In 1929-1930, in Leningrad University, Marr himself gave a series of lectures devoted to the similarities and differences between the Armenian and Georgian languages. He himself compiled a comparative grammar of the Japhetic and Semitic languages. But his approach was always a historical-materialist one. He sharply criticised the formal-comparative Indo-European approach. In his *Chuvash-Japhetics on the Volga*, Marr wrote, " . . . The comparative method is thoroughly deceptive and the existing Indo-European method is merely formal ; it overlooks the fact that, as mankind changed the forms and types of language, not only did the meaning of words alter, but so did the foundations of the changes in meaning . . .".†

Marr did not consider it sufficient to study language only in so far as it became possible to determine stadial types, connected with the development of thought and depending, in the last resort, on the general line of development of human society.

New Languages in the USSR

A POWERFUL supporter of nationality-development in the USSR, a true Soviet patriot, N. Y. Marr considered it necessary always to link science with the practical reality of Socialist construction. At the first All-Union conference of Marxist historians in Moscow, Marr delivered a speech on *The*

* *ibid*, Volume 2, p. 399.

† *ibid*, Volume 5, p. 326.

Use of the Historical Process in Throwing Light on the Japhetic Theory. He stressed in this speech the indissoluble ties between science and life, and his words are equally important to-day. "To speak in the 20th century of science as divorced from life," he said, "is either a hypocritical assertion or a relic of the monasticism of the Middle Ages. A science which is not bound up with the economy and social structure of a country building Socialism, is a science without a future, without method".*

"A fighter on the scientific and cultural front," as he called himself, and an outstanding scientist, Marr carried out monumental work in helping to develop the nationality-language culture of the USSR peoples. On the one hand, he established the scientific and theoretical bases for large-scale work in the creation and development of written and literary languages for peoples with only spoken languages, a work achieved for the first time in history in the Soviet Union. On the other hand he himself participated actively in all the State measures connected with the upsurge and flourishing of the nationality-language culture of the many USSR peoples. He considered active participation in language-construction work in the national Republics and Regions of the USSR an essential for all his pupils and followers.

He attached great importance to the construction of new alphabets and to the improvements of archaically-constructed alphabets based on Arabic, Lamaist and similar sources. He himself worked on problems of terminology and orthography, and on the study of dialects. His frequent visits to Trans-Caucasia, and to the Northern Caucasus, to Abkhazia, Daghestan, to the Volga and Kama River areas, to Izhevsky, Cheboksari, Perm, Ulyanovsk, Alaty, and also to Sukhumi, Makhach-Kaln, Rostov, Nalchik and other nationality-areas of the country, were combined with a painstaking study of the languages he continuously used in scientific studies. He desired to render direct practical assistance to the Japhetic, Turkic, Iranian, Ugro-Finnish and other nationalities of the USSR, who had won self-determination within the Soviet Union.

Considering the study of the living languages of the USSR, and the training of scientific workers from among the newly-freed nationalities, to be a task of great State importance, Marr organised post-graduate studies attached to Academy Institutions in Leningrad and set up in Moscow a Committee for the Study of the Caucasian peoples, which later became the Committee for the Study of the Ethnic and National Culture of the Soviet East, finally becoming the USSR Nationalities Institute. He himself headed these organisations. The living unwritten and newly-written languages of the USSR peoples were a rich and irreplaceable source, which Marr used extensively in his development of the new science of language.

Marr was always interested in the problem of a future single world-language. By his philological material he confirmed J. V. Stalin's statement at the Sixteenth Communist Party Congress that a single world-language only becomes possible in a classless socialist society. He regarded language as an important weapon in the cultural revolution. "It is clear," he wrote, "that to produce the cultural revolution it is important not only to know language as it is, but also to know how it became what it is (however incomplete it may be), so that it may become what it should be socially".†

Marr pointed out that one's native language, whichever it may be, should hold as important a place in the school curriculum as had the classical dead languages—Latin and Greek—in the past. He also stressed the importance of knowing the history of language so as to be able to use and develop the weapon of language to the full. Nationality-languages had to be used in the Socialist reconstruction of the lives of the USSR nationalities.

* *ibid.*, Volume 3, p. 153.

† *ibid.*, Volume 5, p. 422.

Marr was a very self-critical person and demanded constant checks on his own theories and teaching, pointing out the importance of understanding and improving his Japhetic theory, among other teachings. He called on his pupils and co-workers to use criticism and self-criticism to the full.

New Developments After the Death of N. Y. Marr

HIS DEATH did not put an end to the development of his teaching on language. Extremely valuable material has been gathered since his death (1934), in the study of unwritten languages, as well as of languages with many centuries of literary tradition behind them. This material has not only enriched philological theory but has also helped the development of the languages of the peoples of the USSR. It is only in recent years that dozens of grammars and dictionaries have been compiled for languages studied little or not at all in the past: for instance—

Slavonic: Ukrainian, Byelorussian.

Northern peoples: Nenets, Nanai, Gilyak, Karyak, and others.

Ugro-Finnish: Komi, Udmurt, Mordvinian, Mari, Karelian, and others.

Caucasus: Georgian, Armenian, Abkhaz, Adigei, Kabardino-Cherkess, and others.

Turkic: Kumi, Bashkir, Oirot (Altai), Azerbaidjanian, Uzbek, Kazakh, Tatar, Turkmen, Kara-Kalpal, Yakut, and others.

Mongol: Buryat, Khalkha-Mongol.

Iranian: Ossetian, Tadjik and others.

Dialectics and Literary Language.

Much valuable work has been done in studying inter-relations between the dialects and the literary language, not only of long-established nations, but also of peoples who began to develop nationally only under Soviet power. Study of the languages and dialects of Daghestan, the Northern Caucasus, Central Asia, the Far East, and so on, is included in this work. Study of these dialects and languages is carried out not only in a narrow theoretical manner, but also so that the peoples speaking them can be served by the nearest written language to their own and sometimes so that the wealth of words and phrases of separate dialects can be used in the creation and development of literary languages among national groupings who won them only under Soviet power.

Comparative Grammars

We Soviet philologists are the first in the history of philology to be working on comparative grammars of languages which have different systems and different stadial developments.

Shortcomings in Our Work

We have as yet given insufficient study to the problems of lexicography, semantics and material culture, language and nation, language and class, all posed by Marr. Despite the fact that Marr always linked the history of words and their meaning with the history of material culture and of social forms, a number of studies on the history of Russian lexicography recently published, such as the work of Academician Vinogradov, are merely methodological, totally lacking in the historical-materialist approach. Shortcomings in some of the work of Professors Yakubinsky, Zhirmansky and others, all of whom wrongly seek the source of national language in "official and Chancellery circles" instead of in living "popular-speech" sources, have been insufficiently criticised. The problem of language and class has of late been left severely alone by Soviet philologists. The problem of the development of orthography and terminology, and the theoretical formulation of all the tremendous advances which may be noted in languages which not so long ago were without or almost without written forms, must also be resolved.

Objectivism and willingness to compromise, a lack of real Bolshevik criticism and self-criticism, are unfortunately to be found even among supporters and followers of the Marr school. Further successful work and development in the Soviet materialist science of language can only be accomplished if Soviet philologists imbue their work with a deep partisan spirit and carry out the Bolshevik principle of criticism and self-criticism, thus following in the footsteps of Nikolai Yakovlevich Marr, founder of the new materialist science of language.

Abstracted and translated by ELEANOR FOX.

SHORT BIBLIOGRAPHY (IN RUSSIAN)

A. Books

New Teaching on Language in the Present Stage of Development. *By Academician I. I. Meshchaninov, Leningrad State University, 1947. (90 pp.).*

Life and Work of N. Y. Marr. *By V. A. Mikhankova. USSR Academy of Sciences, 1948. (450 pp.).*

B. ARTICLES

The Situation in the Science of Linguistics. By Academician I. I. Meshchaninov. (*A report made at an open meeting of the Scientific Council of the Marr Institute of Language and Thought and the Leningrad Department of the USSR Academy of Sciences Institute of the Russian Language, October 22, 1948*).—*Otdelenie Literatury i Yazyka (Izvestia Akademii Nauk CCCP)* Volume 7, No. 6, 1948.

N. Y. Marr. By Professor G. P. Serdyuchenko. —*Vestnik Akademii Nauk CCCP*, pp. 18-41, No. 11, 1949.

(See also *ibid* Volume 8; No. 1, p. 85; No. 2, p. 168; No. 4, p. 289; No. 5, pp. 467 and 479-495—all 1949. Also *Kultura i Zhizn*, 1949, Nos. 11, 18, 19; and *Literaturnaya Gazeta*, 1949, Nos. 28, 72, 84, 92.

A SOVIET WRITER ON FREEDOM TO CREATE

Extracts from an article by NIKOLAI VIRTA

... I do not wish to engage in polemics ... I merely wish to make certain points clear concerning freedom in creative work here in the USSR. ... I am not a Party member, but with my whole life and soul and all my thoughts I belong to the people and share their deeds, joys, and sorrows. ... When I wrote my first novel, *Solitude*, I was guided by a desire to tell the people the real truth about a certain counter-revolutionary peasant uprising of which, since my father took part in it, I had been an involuntary witness in my youth. While I was writing the book no-one in any way influenced me and no-one told me what to write. My only judge was my conscience ... When the novel was accepted by *Znamya* no-one corrected its ideological line ... This novel won recognition from the people: hence it is only natural that it should also have been approved by the Soviet Press, which expresses the tastes and desires of the people.

... we Soviet writers, whether we are Communists or non-Party people, want to help the Party of Lenin and Stalin ... This does not, however, mean that we refuse to criticise shortcomings ... In our comedies we mercilessly flay bureaucrats, idlers, selfseekers, and the like ... Day after day our newspapers expose inefficiency, disrespect for others, disorderliness, unscrupulousness. This we call self-criticism ... The bourgeois vilifiers know this full well, but ... they hasten to argue from the particular to the general. Any comedy or satire of ours that exposes stupid or misguided individuals is put forward as "the truth about Soviet life." Plain dishonesty! ... books, plays, films or paintings, are expected to give an all-round picture of life in its progressive forms, in its dynamic forward movement towards communism: and for this a painstaking study of the present, of our contemporaries and their thoughts and aspirations, is necessary. ... the minds of our young men and women are not poisoned by cheap fiction; we have no books inciting to war, none dealing with murders, ghosts, and other rubbish; nor can pornographic tales, so widespread in countries with "freedom in creative work," ever be found in our bookshops. No, there is no such "freedom in creative work" in our country, nor can there be! We stand for high-principled literature ... and in this sense no masters of the pen are freer than we Soviet writers. Soviet writers have a boundless field ... and are unhampered as to theme and form. ... the Soviet reader requires of us good books that will help him to an understanding of the complex phenomena of life, of the magnitude of the deeds he is accomplishing. These are the books we write: and there is nothing more splendid than when the people thank the writer, reward him, and love his work ...

LITERARY CRITICISM

By A. Fadeyev

SOVIET literature is on the upsurge, while criticism is unsatisfactory. The writers and the critics themselves, as well as their readers, are aware of this.

Perhaps it is because we lack literary critics? No, we have rather too many. There are 203 critics among the 1,000 members and candidates of the Union of Writers in Moscow alone. There are 73 critics among the Leningrad members of the Union, who number over 300. This is a detachment with which critical thought could embrace all aspects of literature. How does it happen then that, with the existence of such a large body of people occupied in critical work, literary criticism is so weak and fails to satisfy either the reader or the writer? The reason is not far to seek. It appears that just over 50 of the 203 critics in the Union in Moscow, and only 16 of the 73 in Leningrad, occupy themselves with real criticism, that is to say, with Soviet literature. It appears that there is a distinction between "literary critics" [*literaturovedi* in Russ.—EF], who work exclusively on the literature of the past (and they constitute the majority), and the book critics, occupied only with Soviet literature (and they are a handful).

Is it correct from the standpoint of Leninist teaching on the partisan nature of literature, from the standpoint of the tradition of Russian revolutionary democratic criticism, that the overwhelming majority of people engaged in criticism should be, in the main, occupied with the past and not with the present, and that in a society which is swiftly moving from Socialism to Communism? And is it right that literary criticism should be divided into two categories which arose heavens know when: *literaturovedi* [lit. crit.—EF], that is, learned people, and it might be added that "learned" here means a departure from the contemporary scene into the past; and critics who occupy themselves with criticism of contemporary literature and, according to the above peculiar terminology, may be unacquainted with the past of literature and be "unlearned" people?

Is not this separation a hang-over lingering on from the false, harmful conceptions, inimical to us, of what a real literary critic, or, if you like, a *literaturoved* (what's in a name?) should be in our country?

In reality, is it possible in Belinsky, Chernyshevsky, Dobrolyubov, Saltykov-Schedrin or Gorky, to separate the *literaturoved*, dealing exclusively with the history of literature, from the critic occupying himself with problems facing contemporary and developing literature? How is it possible to study the past of literature properly if one is not an active contributor to the literature of communism? And the question spontaneously arises: is not this artificial division between the *literaturoved* and the "critic" a relic of an alien standpoint on the tasks and role of a person occupied in the noble work of literary criticism? It is not difficult to find the source, the people from whom these bourgeois views of the critics' task have come. Suffice it to glance at one of the founders of bourgeois *literaturovedeniya*, Alexander Veselovsky, and others of the kind. It was precisely in his works and in the work of others of his like, in contradistinction to that of the revolutionary democrats, that a departure from contemporary problems was to be observed for the first time in Russian criticism. They sought to turn the critic into a pseudo-scientist allegedly engaged in "pure science", into a man who turned away from the political tasks of literary criticism, separated "literary science" (taking it back into the past and even into the past of the literature of other countries) from contemporary literature and the urgent tasks of the struggle for the happiness and good of the people.

That we have not freed ourselves from bourgeois relics and prejudices which are putting a brake on the development of Soviet literary criticism, is apparent from some of the work done in contemporary *literaturovedeniya*. Take publications such as the "Biblioteka Poeta" (Poets Library), published by "Sovetsky Pisatel", an idea proposed by Gorky. These are excellent publications, planned by Gorky to have it as their aim to acquaint young people with the great Russian poetry of the 18th, 19th, and 20th centuries. A long time has passed since the foundation of this "Library", and how Gorky's plan has been distorted! The "Library" has become a focal point of all that is reactionary in literature. One has only to look at its publications to see that all the reactionary poets of the distant and recent past are included in it—from Innokenty Annensky to Andrei Bely. Moreover, observe the prefaces and commentaries: many of them contain a collection of views thoroughly antagonistic to the Leninist principle of partisanship in literature.

This is where the bourgeois liberals, formalists and aesthetes have found themselves a vent. The collection of poetry by Batyushkov, published in 1948, contains a formalist preface by B. Tomashevsky. The question of the influence of the Patriotic War of 1812 in the formation of Batyushkov's poetry is entirely by-passed and consequently his finest patriotic writings are omitted. The preface also elaborates the wholly unscientific concept of Batyushkov as a poet who had his roots in the soil of French poetry and not in the soil of Russian reality.

Russian poetry is regarded in the "Library", by the critics B. Eichenbaum and M. Azadevsky, as deriving from a "single stream" of world poetry. The forewords of T. Volpe to the poetry of A. Bely, and of N. Stepanov to the poetry of V. Khlebnikov, show signs of the same reactionary treatment. The above poets should not have been included in the "Library".

Take as an example the book *Pushkin, Founder of the new Russian Literature*, published in 1941. In the articles therein by A. Tseitlin, S. Bondi, and B. Tomashevsky it "turns out" over and over again that our great Pushkin is a mere imitator of Western European examples. Such bourgeois viewpoints on *literaturovedeniya* are being extensively instilled into our youth. Is it not time for the Ministry of Higher Education to give some thought to the fact that of all the USSR professors and literature teachers holding the title of Doctor of Sciences there is only one (yes, one!) doctor teaching contemporary Soviet literature!

We are not against studying the history of literature. Contemporary literature cannot be understood without a knowledge of the history of literature. We have many valuable works on the past of great Russian literature and on the literature of the peoples of the world. But it is time and high time we dispensed with the bourgeois viewpoint in literary criticism, which shows itself even in some valuable work by our critics.

A fit of "academicism" (in the bad sense of this word) is to be found in B. Meilakh's excellent book, which won a Stalin prize, *Lenin and Problems of Russian Literature in the late 19th and early 20th centuries*. This book is least satisfactory on the question of the *partisanship* of literature. In examining the work of Lenin, of course, Meilakh shows the partisanship present in Lenin's evaluations of literature. It is characteristic, however, that the weakest chapter is that devoted to Lenin's teachings on partisanship in literature. It cannot be a strong chapter, because it is in no way linked with the tasks of the ideological struggle in contemporary Soviet literature. It is difficult to understand which ideological enemies B. Meilakh directed his book against or what contemporary problems were worrying him. It is no accident, either, that there is an inclination to turn to Veselovsky in this book. And who can be more alien than he to the very spirit of Lenin?

Any book on the past by a contemporary Party literary man must be written

as a "militant" book fighting against to-day's ideological enemy. And we shall never have a new generation of young people resolutely oriented towards contemporary tasks as long as the overwhelming majority of literary critics are occupied with the past. They have "priorities" in the Chairs of our learned institutions. Their tastes and likings are inculcated into our young people. It is not in the interests of the present that our young people are being taught to love the past. On the contrary, they are being lured into the past to take them away from the present. And the small number of critics in the provinces learn this from "their elders" in Moscow and Leningrad.

What I have said does not mean that we should sweep away the finest and best work done by our *literaturovedy* (if it pleases them to be so called!). We need merely to distinguish the bad from the good and turn a majority of our literary critics, who are advanced Soviet people, towards contemporary problems. Surely we have critics who engage both in work as "literary critics" and in literary criticism? We have. This is indeed reflected to some advantage in their work. But we have very few such people—perhaps two or three. Why, for example, does not such an experienced literary critic as N. Brodsky, who has written a most valuable book on Lermontov, turn his attention to his contemporaries? It will be said "They are not Lermontovs". True, that may be so. Yet it has fallen to their lot to speak a new word on the artistic development of mankind!

Why do not D. Blagoy, N. Gudzy and, still more, young men like B. Meilakh, and many others also, write on Soviet literature? If we shook off our bourgeois prejudices and approached the noble task of literary criticism with revolutionary boldness, our literature would make speedier progress. How much good could be done to Soviet literature by the many leading figures among to-day's literary critics, with their knowledge of the history of literature and their experience in artistic and ideological analysis of different works and their experience in monograph work!

To carry out this change-over we must, ignoring all personal feelings, bring out into the fresh air all those who consciously withdraw from reality. Our criticism will lead literature forward along the path to Communism only if it breaks with the prejudices and relics of bourgeois literary criticism and becomes genuine criticism of the Leninist-Stalinist kind.

A. Fadeyev made this opening speech at a joint meeting of literary critics and book critics called by the USSR Union of Soviet Writers' Commission; a lively discussion followed.

A. Egolin pointed out that most learned institutions lacked qualified people capable of reading lectures on contemporary literature and that instead of Doctors of Science, or people studying for such a degree, Professors or Lecturers being responsible for Chairs of Soviet Literature, the work was often left to senior teachers. In the USSR Academy of Sciences Institute of Literature (Pushkin House) it was only in 1948 that the Soviet Literature department was founded. Some literary critics who had turned their attention to contemporary themes (D. Blagoy had worked on the Soviet historical novel and N. Stepanov on Mayakovsky), and others, having met with a total lack of interest, had abandoned these subjects.

Professor Meilakh mentioned the harmfulness of the existing narrow specialisation. It was not enough for a man to specialise in the 19th century alone: frequently his entire life was devoted to the study of a single writer or even to a single aspect of that writer's work. On the other hand, the experience of many of these specialists could be used in helping to improve the skill of Soviet writers.

[Source : *Literaturnaya Gazeta*, 77, 1949. Translated : E.F.].

RECENT DEVELOPMENTS IN SOVIET MUSIC

By H. C. Feldt

THE RESOLUTION of the Central Committee of the Communist Party of the Soviet Union (Bolsheviks) on Vano Muradeli's opera, *The Great Friendship*, was of tremendous importance to the further development of Soviet music and of all Soviet socialist culture. This Resolution was warmly welcomed by the people, by the intellectuals, and by art workers. Its publication on February 10th, 1948, evoked a lively response throughout the country: the newspapers were inundated with letters, discussion meetings were held far and wide. The gist of the many comments was that the Resolution expressed the thoughts and feelings of the Soviet general public.

Soon after the publication of the Resolution some 580 Soviet composers and musicians assembled in Moscow to discuss the problems of their art. At this Congress (April 21st-25th, 1948) over fifty representatives of the various Soviet Republics took the floor to express their views. All the speakers declared that Soviet composers fully recognised the rightness of the people's demands; most of them sharply criticised the small group of Soviet composers who had been carried away by false novelty and mere form and were writing music foreign to the Soviet people and their artistic tastes, and whose work, in the words of the Resolution—

"... was a striking illustration of formalistic distortions and undemocratic tendencies in music . . . This music makes a cult of atonality, dissonance, and discord, which are supposed to represent 'progress' and 'novelty' in the development of musical form. It renounces such vital principles of musical composition as melody . . . By scorning the best traditions of Russian and Western classical music, by rejecting these traditions as 'obsolete', 'old-fashioned', and 'conservative', by looking down on the composers who are conscientiously striving to assimilate and advance the methods of classical music, regarding them as exponents of 'cheap traditionalism' and 'cliche-mongering', many Soviet composers have, in their mistaken pursuit of novelty, divorced their music from the needs and artistic tastes of the Soviet people, . . . lowered the high social role of music and restricted its significance . . . Some Soviet composers hold so much aloof from the people that the unsound 'theory' is current among them that the reason why the music of many modern Soviet composers is unintelligible to the people is that the latter are not yet mature enough to understand this subtle music, that they will only be able to understand it centuries hence, and that there is nothing to worry about if some compositions fail to appeal to listeners. . . . The cultivation of these and similar views is of the greatest harm to Soviet musical art. The toleration of such views is contributing to the spread among representatives of Soviet musical culture of tendencies alien to it, leading to an impasse in musical development . . .".

This trend had found its fullest expression in the work of the composers D. Shostakovich, S. Prokofiev, A. Khachaturian, V. Shebalin, G. Popov, N. Myaskovsky, and others. D. Shostakovich, A. Khachaturian and other composers who had allowed formalist errors to creep into their work, spoke at the Congress. They said that the nation-wide criticism of their work was of exceptional value to them; it would help them to correct their mistakes and in the future write music that would be comprehensible and near to the Soviet people.

Besides discussing creative problems, the Congress also settled organisational matters arising from the criticism levelled by the Resolution against the "dank and mildewed atmosphere around the Organising Committee [of the Composers' Union—H.F.]". New men were elected to the leadership of the Union; Academician Boris Asafiev was unanimously elected Chairman of the Board of the Union. [Asafiev died in 1949—H.F.]

In his closing speech at the Congress, A. A. Zhdanov gave the following expositions :—

“Those who consider that the full flowering of national music, whether Russian music or that of the other peoples of the Soviet Union, indicates any diminution in the internationalism of art, are making a serious mistake. Internationalism in art does not spring from the depletion and impoverishment of national art : on the contrary, internationalism grows where national culture flourishes. To forget this is to lose one's individuality and become a cosmopolitan without a country. Only a people that has a highly-developed musical culture of its own can appreciate the musical riches of other nations. It is impossible to be an internationalist in music or in anything else unless one respects and loves one's own people.

... What is it in music that is proof of genius? It is not something that can only be appreciated by a small group of aesthetes : a musical work is proved to be a work of genius by the scope of its content and depth, . . . by the number of people it is able to inspire. Not all that is readily grasped is a work of genius, but all that is real genius is readily grasped, and the greater the genius the more acceptable it is to the broad masses of the people. The greater a work of music, the more responsive the chords it strikes in the human spirit ; a composer capable of striking only one answering chord, or only a few strings, is inadequate, since modern man—and particularly our Soviet man—is a highly complex organ of receptivity.”

The Second Plenary Session of the Board of the Union of Soviet Composers, December 21-29, 1948

THE MEETING of the Board, consisting of 30 members, was called for the purpose of surveying and assessing the activities of Soviet composers in the period since the publication of the Resolution of the Central Committee of the CPSU (B) condemning formalist tendencies in Soviet music. A series of fifteen concerts, comprising a total of 150 compositions by more than a hundred composers and including 30 major works, was the main item on the agenda. The concerts included works by composers from the RSFSR, the Ukraine, and the Trans-Caucasian and Baltic Republics, and represented the best of the work of the past ten months in the various Soviet Republics.

The main speech at this Conference was made by the General Secretary of the Union, Tikhon Khrennikov, and a lively and often controversial discussion followed. The general impression gained from material appearing in the Soviet Press after the Conference was of a unanimous striving on the part of the composers to create music with a message, music linked with the life of the country, reflecting the heroism and grandeur of the Socialist epoch, portraying the Soviet man of to-day, the fighter for the triumph of great ideas. Though much had been achieved in this respect, there was no evidence of complacency : on the contrary, all the members of the Board were keenly aware that much remained to be done ; the atmosphere at the Conference was one of searching criticism and self-criticism.

Thus, T. Khrennikov in opening the Conference insisted that the considerable positive achievements since the Resolution in no way signified a complete victory of socialist realism in music ; he remarked that the overwhelming majority of composers had sincerely and energetically struck out along the path of realism, but went on to say : “Formalist tendencies are, however, still manifest in the work of a number of composers who have obviously not drawn the proper conclusions from the Resolution of the Central Committee. The clearest example of this is Sergei Prokofiev's new opera *The Story of a Real Man*, the music of which is extremely formalistic and in gross contradiction to the spirit of Boris Polevoy's book.” He expressed the opinion that this opera might have turned out more worthy of its important theme if Prokofiev had not completely isolated himself from the composers' organisation while working on it. “If he had not so resolutely turned down all offers for a preview of his opera in the Union of Composers, if he had not kept everything about it so secret right up to the time of its public premiere, it is possible and even

probable that constructive and comradely criticism would have enabled him to abandon the harmful path he had chosen to travel".

Returning later in his speech to the works of those composers who had been mentioned in the Resolution as representing the formalist trend in Soviet music, Khrennikov said that of recent work by Shostakovich nothing was known apart from his "successful music for the film *The Young Guard*", and added: "While fully aware of the importance of such music, we must remind Shostakovich that compositions in other genres also are expected of him by the Soviet public." This reminder, he said, applied also to Khachaturian.

Miaskovsky's *Symphony on Russian Themes*, which was heard at the Conference, was evidence—said Khrennikov—of the composer's wish to base his work on national-popular material, but could not be said to give any impression of artistic brilliance. Shebalin's 7th Quartet did not, in Khrennikov's opinion, give the impression of artistic integrity, only the first and third movements deserving any praise as regards the composer's striving for realistic means of expression and for a clear interpretation of Russian national character.

Three works by Muradeli were performed at the Conference: *Hymn to Moscow*, and two choral compositions. Khrennikov remarked that Muradeli had not produced a great deal in point of quantity in the last ten months, but when he went on "... these three compositions, for the trend they show, and for their artistic value, deserve praise", there was a storm of applause.

Particular interest was aroused at the Conference by the rapid development towards genuine realist music on the part of the composers from the Trans-Caucasian Republics. The performance of the *Motherland Cantata*, by the young Armenian composer, A. G. Arutyunyan, for example, brought the audience to its feet. Khrennikov extolled this in his speech as one of the best compositions heard at the Conference, and it later won a 1948 Stalin First Prize of 100,000 rubles. The young Azerbaijanian composer F. M. Amirov scored a great success with his orchestration of two Azerbaijan *mugams* (classic folk-ballads): Khrennikov pointed out that the original and extraordinarily interesting symphonic treatment would undoubtedly be an important factor in attracting the peoples of the Soviet East towards the symphonic idiom through musical forms familiar and dear to them. Amirov was awarded a Stalin Second Prize of 50,000 rubles for this work, as was D. Kabalevsky for his *Violin Concerto*. Khrennikov considered the latter brilliant in its youthful appeal and clarity, but thought the first and third movements had a hint of superficiality; he said that if the composer had used folk-song intonation in a profounder manner the Concerto would have carried greater conviction and been more significant. In this respect, Khrennikov went on, B. D. Dvarionas' *Violin Concerto* made a more positive impact on the listener, being based on genuine Lithuanian folk-music, which found in it a natural treatment. Dvarionas' *Violin Concerto* won a 1948 Stalin First Prize of 100,000 rubles. Another 1948 Stalin First Prize winner whose work was performed at the Conference was N. Budashkin; he specialises in compositions for orchestras of Russian folk-instruments, and his *Russian Fantasy*, *Dumka* and *Fantasy on Three Mokrousov Songs* were performed at the Conference and later won him the award.

Among the compositions singled out by Khrennikov was Weinberg's *Sinfonietta*, the work of a composer "who was at one time strongly influenced by modernistic art, which blighted his undoubted gifts; having turned to Jewish folk-music as his source of inspiration, Weinberg has created a brilliant and joyous composition devoted to the theme of the free creative life of the Jewish people in the land of Socialism."

Khrennikov went on to outline the extremely unsatisfactory state of affairs in opera, saying that it must be admitted that neither the leadership of the Composers' Union nor the Committee for Art Affairs had devised proper

ways and means to assist composers in this extremely difficult field.

Music for children, on the other hand, was, he said, developing healthily : Krassev, Levin, Raukhverger, Kabalevsky, Tilicheyev, Popatenko and others were mentioned as being active in this aspect of Soviet music both in the instrumental and in the vocal fields.

In conclusion Khrennikov said : "musical criticism has failed to live up to the tremendous interest aroused among the masses by the Resolution or to develop a proportionate degree of activity".

KHRENNIKOV'S statement on the complete stagnation in the writing of Soviet opera evoked particularly spirited comment and controversy. N. Goryainov pointed out that some composers were engaged in work for operahouses yet not really tackling the main job, the creation of Soviet opera. Khrennikov himself, for example, was working on the completion of *Frol Skobeyev*, Koval was working on an arrangement of the children's opera *The Wolf and the Seven Goats* and getting on with his work on *Count Nulin*, while Shaporin seemed unable to get *The Decembrists* finished.

K. Akhmetov from Bashkiria resented the fact that what he considered such notable achievements as the opera by the Bashkir composers Zaimov and Spadavekkia, and the Bashkir composer Zhiganov's opera *Altyn Chech*, had not been taken into consideration before the problems confronting Soviet opera were mentioned. Others were in full agreement with Khrennikov. Mukhtar Ashrafi from Uzbekistan said that the stagnation was in part caused by the difficulty in finding good librettists.

The Leningrad composer M. Glukh said : "Khrennikov has made a very just evaluation of the compositions heard at this Conference, and I believe that the whole of our music world agrees with him. But will our people make the same evaluations of these compositions? That we do not know. It is isolation and a narrowly-professional atmosphere that prevents us from reaching a correct appraisal. The task of presenting our work to the people still lies before us."

In closing the Conference, Khrennikov said : "We end this Conference enriched by a great experience, conscious of the great responsibility involved in the immense task before us. We must maintain the unity and friendship that has become so apparent during this Conference. In all our activities we must develop the spirit of self-criticism . . . and above all we must strive and battle for partisanship in our art, for it is a partisan art alone that can serve as a powerful lever in the education of our people in the spirit of communism, that can rightly reflect our . . . epoch in all its greatness."

The Third Plenary Session of the Board of the Union of Soviet Composers, November 26-December 11, 1949

THE 1949 ANNUAL CONFERENCE of the leadership of the Composers' Union aroused the interest of the Soviet general public to an unprecedented degree. The many new compositions that had been heard at concerts and on the radio during the year had been widely discussed in the countless listeners' groups and societies as well as in amateur and professional musical circles ; many of these works had been reviewed in the Press and commented on in the correspondence columns of the leading music and art journals. It was therefore with a great sense of expectancy that the Soviet people awaited the Conference of the Board of the Union, at which the composers themselves were to hear and review each other's latest compositions, which were also to be heard at public concerts organised by the Union.

The main report to the Conference on the work of Soviet composers was made on December 7th by T. Khrennikov, who emphasised early in his speech that the decisive turning-point in the development of Soviet music had been

reached, that Soviet thematics had become the driving force in the creative work of Soviet composers. He went on to cite, as the first instance of this, the monumental cantata *Song of the Forests*, by Shostakovich—his first important vocal work, dedicated to the Stalin plan for transforming nature by vast afforestation and irrigation schemes. The work is remarkable for its optimism and is an affirmation of the joy of creative labour. “The cantata *Song of the Forests*”—Khrennikov said—“bears witness to the profound artistic change that has taken place in the composer, to the fact that he is standing firmly for realism and has drawn close to the sources of Russian classic and folk music.” The cantata, which was an outstanding success at one of the December concerts in Moscow, has since been broadcast several times and has been heard in this country in a Moscow broadcast for British listeners.

Khrennikov said that the tone-poem *Azov Mountain*, by the young composer Alexey Muravlev, was outstanding among the symphonic works heard at the Conference: written on the theme of a tale from the Urals, it unfolds in brilliant musical images the triumph of man over nature. Among other noteworthy works Khrennikov mentioned the vocal-symphonic poem *Glory to Thee My Motherland* by the Ukrainian composer E. Zhukovsky, and the *Fourth Youth Symphony* by the Estonian Artur Kapp (who is one of the oldest of Soviet composers), the legend-cantata *Siberian Land* by Nikolai Kryukov, the cantata *Russian Earth* by V. Dekhterev, and the symphonic poem *Alexander Matrosov* by A. Nersesov, as being outstanding. He hailed the *a capella* choral symphony *Glory to the Motherland*, by Gavriil Popov, as an indication of the profound re-orientation of this composer, who “is now well on the way to realism in his music”. This technically difficult work is remarkable, said Khrennikov, for its buoyant mood and for its purposefulness, and bears witness to an artistic upsurge in the sphere of Soviet choral music.

Many symphonic works of smaller scope were performed at the Conference concerts, and Khrennikov singled out the following as noteworthy in their realistic trend and in their affinity with folk-music: *Rast* (a *mugam*) by the Azerbaijani composer Tagi-zade Niyazi, an orchestral suite by Nazib Zhiganov, a Tatar, two movements of a symphony by T. Kokoiti, an Ossetian pioneer in symphony-writing, N. Ivanov-Radkevich's suite *Pictures of Russian Nature*, and many others.

Khrennikov went on to say: “An analysis of the various compositions we have so far heard at this Conference allows us to draw the conclusion that there is a forward movement in Soviet music. But at the same time we must emphasise that in the work of individual composers here and there serious shortcomings are still to be met with. I admit that in allowing these works to be included in the Conference concerts the Secretariat of the Union was wrong. For instance, A. Lokshin's *Welcome Cantata* was performed and proved to be a cold, confused and noisy composition whose musical images did not ring true, while N. Peiko's *Suite on Russian Themes* clearly shows as yet unsurmounted formalistic tendencies.”

Later he dealt with a type of composition that is “of great significance to the composers' further work”, citing as an example Y. Levitin's cantata *Gori*, the music for which was written in the conventional “Eastern” idiom, the composition forming an original and light-hearted excursion into national musical culture. He pointed out, however, that this might to some composers offer a line of least resistance and an over-simplification of the complex tasks confronting them.

The programmes of the Conference concerts included a number of symphonic and large-scale vocal works by young composers, and also a great deal of their chamber music. The symphonic legend by G. Ustvolskaya (a woman composer) entitled *Stepan Razin's Dream*, E. Svetlanov's cantata *Native Soil*,

A. Aratyunyan's *Festive Overture*, A. Babadzhanyan's Violin Concerto, R. Lagidze's symphonic poem *For the Motherland*, S. Tsintsade's Quartet, and S. Dzherbashyan's Sonata for Cello and Piano were singled out for special praise.

Khrennikov then spoke at some length of Soviet opera, remarking that the first important operatic achievements had been made quite recently. The best of the new operas had been accepted for production by the largest theatres in the Soviet Union. [The Soviet Press reported in February that the Moscow Bolshoi Theatre would stage five of the new Soviet operas during the 1950 season, and also Prokofiev's ballet *The Stone Flower*.—H.F.] "An important event"—said Khrennikov—"is the appearance of the opera *With All Your Heart*, by the Ukrainian composer G. Zhukovsky. It is based on the popular novel of that name by E. Maltsev, and the vivid folk-colouring of the opera, imbued with lyricism and the joy of living, abounding in musical images and choral sequences, makes this fine work a true mirror of the happiness of creative labour in the post-war collective-farm countryside. Another significant achievement is Kabalevsky's opera *The Unvanquished*, which is his *The Family of Taras* in a completely revised form. *The Rich Bride*, by B. Troshin and V. Enke, is another successful opera which, with S. Ryauzov's *Medegmasha*—based on Buryat-Mongol folk-music material—and the children's opera *Uninvited Guests* by the Georgian composer A. Bukiya, deserves mention."

Khrennikov spoke of two operas on historical and literary subjects, L. Stepanov's *Ivan Bolotnikov* and K. Molchanov's *The Stone Flower*, as successful. In dealing with ballet, he gave the following examples of the "rich development taking place in Soviet ballet music": *The Bronze Horseman*, by R. Gliere [who was awarded the Order of Lenin on his 75th birthday in February, 1950.—H.F.], *Aldarke's Adventure*, based on Turkmen folklore, by K. Korchemarov, *Youth* (suggested by N. Ostrovsky's *How the Steel was Tempered*), by M. Chulaki, *The Seven Beauties*, by K. Karaev, and *He Played and Danced*, by A. Skulte.

"The year 1949 was a successful one for Soviet song-writers, too," Khrennikov went on. "A special feature of many of the new songs is their courageous and heroic character. The best of them sing of the struggles of the peoples of all nations for peace. A song by V. Muradeli won the first prize at the international contest for students' songs in 1949, and was adopted as the official anthem of the International Students' Union. Also in 1949 a song by A. Novikov became the official anthem of the World Federation of Democratic Youth."

Khrennikov ended his speech in these words: "We are faced with the task of surpassing our present achievements, and there can be no doubt that we shall do so. Soviet music is developing in exceptionally favourable conditions: Socialist life affords inexhaustible sources of inspiration. Intense creative effort, and our Socialist sense of responsibility in our work, will win for our music the acclaim of the whole Soviet people."

Note.—An account of the four-day discussion on Khrennikov's speech appears in *Sovietskaya Musika*, No.1, 1950.

A list of the major Soviet orchestral, vocal and chamber music compositions of 1948 and 1949 is available at the SCR, price: 1/6, (1/-)

BIBLIOGRAPHY.—*VOKS Bulletin*, 1948; *Sovietskaya Musika*, 1948, Nos. 1, 2; *ibid*, 1949, Nos. 1, 12; *Sovetskoye Iskusstvo*, 1949, Nos. 50, 51; *Pravda*, Dec. 6, 8, 1949; *Modern Quarterly*, Vol. 5, No. 1.

MUSICIAN IN MOSCOW

By Thomas Russell

Chairman and Managing Director of the London Philharmonic Orchestra

THE journey to Moscow in August, 1949, represented my first visit to the Soviet Union. Thus I was a new boy among my companions, most of whom had experience of this new world at varying intervals during the last 25 years.

My only means of comparison was with what I had read of the pre-1917 Russian Empire; the jaded, pessimistic characters of Chekhov; the courage, patriotism, and brutality of Tolstoy's *War and Peace*; and the many stories of the sodden backwardness of the peasant. I had also read of what had happened since 1917, of the enormous strides in industry, mechanisation, and electrification; of the widespread culture of music and the arts, of the incredible demands which had been stimulated for all kinds of reading.

I did not go to Moscow, therefore, with an open mind. I had a bias, for it was clear to me that, whatever else might or might not have succeeded, the conscious planning of life in the Soviet Union was something bound to bring most favourable results to its inhabitants. Yet I still had to be convinced of one thing, and that the most important.

Under socialism it is only relatively difficult to overcome material problems, and the victorious conduct of the anti-fascist war showed conclusively that the USSR, in spite of starting from complete devastation in the early twenties, had successfully surmounted the main industrial and agricultural problems. But the greatest problem of all might yet remain: had human nature begun to change in response to these changed conditions?

It did not take long to answer this question. I had been told, of course, that I should have no liberty of movement in Moscow; even the air terminus official who stamped my ticket for the plane warned me that I should be followed wherever I went; he could quote cases to prove that this was always so. It was not true. We wandered round the streets of the city as we pleased—morning, noon, or night. Our interpreters, anxious to be of the greatest assistance to us, and concerned when those of us who spoke little or no Russian decided to go off alone, were in a more tranquil state of mind when they were guiding us, but we made it clear that we had confidence in the quiet life of Moscow, and were thus able to walk around, spend our time studying shops, their customers and their prices, and to observe the daily life and aspect of the people.

Ten or fifteen years ago it was a crime to be a jay-walker in Moscow; a militia man would fine you on the spot if you did not cross at the right place. Now, you were free to be run over if you were stupid or careless enough, and although it was simpler and safer to cross at the appointed places, no one seemed concerned if you did otherwise. I remembered being violently shouted at by a French *agent* before the war, when I absent-mindedly failed to cross between the nails; but when I cut into the road on the bend of the square in a hurry to reach the Bolshoi Theatre, a militia-man saluted politely, pointed to the pavement, and left me to take the hint.

Similar instances could be quoted in plenty, and this new politeness was a pointer to the respect which, from all the evidence, now exists between man and man in the Soviet Union. I have some experience of many countries, including most of those in Western Europe, with a short stay in New York and nearby cities. I had always been happy to observe, and to be told by foreigners, that nowhere more than in England was there to be found this

respect for fellow-beings. I believe that the Russians have overtaken us. Not once while I was there did I see anything resembling a dispute, although I went to football matches among 96,000 people, plus those who failed to get in; to a mass meeting where the 15,000 who listened to peace speeches were envied by other crowds who would have liked to take part, and to many other centres of activity.

This new attitude is most evident in the treatment of children. The quality and health of our own children is better now than we have ever known, and to say that Soviet children seem uniformly more striking is to make a great claim. But the claim must be made. I saw great numbers of children while I was there, in school, in the children's theatre, at the Bolshoi Theatre, at the special matinee performance (they are not admitted to evening shows), and in the streets. The "break-up of the family" which we had been warned would follow the advent of socialism shows no sign of taking place. Everywhere one sees the greatest evidence of parental affection, and it is clear that the family is still the basic unit of this new society. A Red Army man, or indeed any father, carrying his child through the streets is a common sight, and although children may be well looked after in creches, kindergarten or schools, while one or both of the parents are working, they make up for the separation as soon as they are together again.

I found the children gay and lively without being noisy or boisterous. One might have expected to find some spoilt behaviour among children for whom so much is done, and who share more of the citizen rights of adults than they would do elsewhere. But the quiet dignity of those who came to the children's theatre or the puppet shows was reassuring. Indeed, it was most impressive, for although they are allowed to move about the theatre as they please during intervals, there is no wild rushing about, and no horseplay, although they take a lively part in the excitement of the performance itself. They sit in the theatre buffet, sipping their drinks or chewing their buns, always held in a folder of grease-proof paper, quite up to the solemnity of the occasion.

My several visits to the Bolshoi Theatre were of particular interest to me as a musician, for I had heard much of it and of its special tradition. It is a splendid building, large and brilliant in its lighting and gold paint. It resembles the Scala Theatre of Milan rather than our own more cosy Royal Opera House, and is maintained in perfect condition. The performances are lavish in every way; a full and good orchestra, large, splendidly-singing choruses, and a *mise-en-scène* of the utmost magnificence. Solo singers are good without being world-shattering; perhaps the era of great singing is past for Russia, as it appears to be for the rest of the world. If one accepts the principles of production on which these performances are based, they could hardly be bettered. For my part, I found them too luxurious, too naturalistic, leaving too little to the imagination of the audience. And sometimes, as in *Ruslan and Lyudmila*, the slight story of the opera tended to become swamped by all the colour and movement of the stage. This criticism did not apply to the production of *Eugene Onegin*, which was satisfying in every respect. The children at the matinee performance I attended believed every moment of it, and wept quietly at the death of Lenski.

It would be little exaggeration to say that here it was the audience which took most of my attention. I have seen opera in many opera houses, and there was not much which was new to me. But the audience was certainly different. Here was evidence of a classless society, with differences of income, differences of dress and quality of clothes, differences of jobs and background, all brought together by a love of opera which few if any of their immediate ancestors had shared or been aware of.

The problems of these differences took us to factories, schools, shops and restaurants, where we checked wages, prices, privileges and expenses. Any direct comparison between the rouble and its official rate of exchange in pounds

sterling has less point than comparisons in other currencies, all of which are misleading. But the average earnings set against the cost of living convinced us that few if any of the inhabitants of Moscow were not well above the minimum level. And the occasional man regarded as unemployable in any other country would at least earn a minimum wage, which his wife could supplement if she cared to work as well.

The real meaning of wages is very different from that in England. In Moscow, it is reliably estimated that when a worker has paid his rent, taxes, and other smaller contributions, he still retains 85 per cent. for himself to spend on consumable goods. Or, to put it another way, his wages are worth 40 per cent. more than the actual amount received, in consideration of all the social services which are placed at his disposal.

The greatest difference of all is rent. I saw a number of building constructions while I was there, and one day was able to examine closely some blocks of flats which were forming a new garden village. These flats comprise a living room, bedroom, large kitchen (or breakfast room), and bathroom, the whole centrally heated and approached by a lift, the various buildings surrounding what will be very pleasant gardens. The monthly rent of such a flat is 48 roubles, representing no more than 4 per cent. of the earnings of a young office worker. The fee for ten minutes' broadcasting would pay this rent for a year.

The speed with which these buildings were going up was amazing, and it is no surprise to learn that already much of the war-time devastation has been replaced. I had heard much of the Stakhanovite movement, and always imagined that these patriotic workmen were sacrificing their health in their tremendous efforts to stimulate their fellow-workers to speedier production. But when I saw a noted Stakhanovite bricklayer on the job, and was told that he laid 8,000 bricks a day with his gang of four or five women, I found that he could work in a steady, almost leisurely manner, able to give his attention to answering questions which our guide put to him. It was simply a matter of organising essentials in a labour-saving way, and of creating a sympathetic understanding between himself and his assistants. It was probably true that his work had less finish than that of a British bricklayer, but the resulting buildings were handsome and effective, and were filling an urgent need for better living quarters.

Even in this haste, the interest of the individual is carefully considered. Suburban Moscow has still many of the old, pre-1917 wooden houses, not yet overtaken by the building drive. Gradually, as brick-built Moscow spreads out, these wooden villages are disappearing. But the inhabitants of these picturesque but not too hygienic dwellings have a right to stay where they are until the authority concerned has found them alternative accommodation which compares favourably in every way. In the garden village I am speaking of, a couple of these houses still remain, as no suitable alternative has yet been found, and the particular block of flats destined to take their place skirts round this spot, losing no time by being held up, but still leaving the house-dwellers in occupation until a flat is ready for them.

Men and women work together in every walk of life, and it is no longer a matter for discussion. The equality of the sexes has become so much an integral part of life in the Soviet Union, that any comment from visitors occasions surprise. I found a huge textile factory, where 6,000 workers were engaged, under the direction of a woman who had formerly been an ordinary weaver. But she was no ordinary woman, although in older times she might well have died at her loom. Her capacity for capable direction was shown not only in her office, where she answered all our questions—many of them technical—with the greatest ease, but in her relations with the workers, men and women, whom we met as we wandered round. I searched for the slightest sign of resentment among the male workers at being "bossed" by a woman. I found none, probably because there was no "bossing". The factory appeared to run, as so many

organisations do there, just by itself. Everyone had his or her own job and got on with it, aiming wherever they could to beat the targets set them and announced clearly on colourful signs. They knew that the fascinating varieties of textiles which they were turning out were for their fellow-workers in other industries; that even if they beat the target, as they clearly intended to do, it would not result in an overstocked market with unemployment to follow. And thus the whole basis of their work and their life was changed.

My musical interests brought me into contact with many of those who are responsible for organising the intensely active musical life of Moscow. A visit I made to the Conservatoire would have sent me away completely happy, but for the knowledge that we in Great Britain are still far from such intelligent and successful planning. In many ways, of course, the life of the Conservatoire resembles that of any of our own leading schools of music, although I believe that the general education of the students in Moscow is far wider than is expected from music students here. And those students, too, are generously provided with stipends which allow them to live without undue stinting or reliance on their parents during their years of study. But the main advantage, even assuming that the quality of teaching was no better than our own, lay in the position of the music student once he had graduated.

I spent half-an-hour, for example, in the lecture room of the conducting class, and found six or seven young men studying a new score with their professor. They were not unlike a similar group in London, except that one came from Kazakhstan and would never have gone far beyond humming folk tunes at his work but for the revolution. It was he who conducted the first movement of a Tchaikovsky symphony for my benefit, and made an excellent job of it while two students represented the orchestra for him on the piano. But each one of those students knew that, provided he graduated, he would be assured of an active, well-paid career as a conductor from the moment he left the Conservatoire. If I tell you that for the last ten years hardly a week has gone by when I have not had to meet a frustrated young man in London who having studied the same art, has found no opening for his talents, you will appreciate my envy of the good fortune of the Soviet students. The waste of such potentialities, so soul-destroying in our civilisation, exists no longer in the Soviet Union, and if ever the demand for conductors is satisfied, aspiring students will be advised to turn their enthusiasm to other aspects of musical life where vacancies are still to be filled.

It was natural for me to investigate what has become a very vexed question, that of the official criticism of Soviet composers. We have been told that these poor creatures have been blackguarded, banned, and banished because they would not write music to please certain political personages. It was clear from the moment I reached Moscow that this was not true, for the first person I saw in the place of highest honour at the All-Union Peace Congress was Shostakovich, the most criticised and the most popular of all Russian musicians. I also met and talked with Glier, Shaporin and Khrennikov, and found no evidence of active interference in their work. As for Shostakovich, harried and harassed as he was reputed to be, I heard some of his music to the fine film, *Meeting on the Elbe*, and was told that during the last year or so he had also completed the music for another leading film, *The Young Guard*, for which he received in fees as much as the woman director of the textile factory would earn in four years. This was hardly victimisation.

It is difficult for us to understand these social criticisms of the work of musicians and other artists. Difficult because we have accepted the separation between the artist and his people. That separation does not exist now in the Soviet Union, and the artist is concerned by criticism, not because it is directed against him, but because it shows that he has failed to give his fellow-countrymen what they are asking for. I was told on all sides that long before any criticism

was officially formulated, the public had made their own criticism by staying away from performances of particular works. To discuss this subject fully would take many pages, but I feel sure that these artists do not resent such criticisms; they are anxious to fulfil their responsibilities to the people of their country. From more than one independent source I heard how, only just before I arrived, Shostakovich had played a new work, a cantata on a patriotic subject, to his fellow-composers. They had highly approved of this music, and had made one or two helpful comments which the composer had promised to consider. In the meantime, he is honoured more than any other composer I have ever met.

Any criticism which the public may express, either by its absence from certain performances or by the no less effective method of protests in local newspapers, wall newspapers, or discussions, does not imply an indifference to novelties. I was assured by Khrennikov that almost every work written by a recognised composer received at least one performance; further performances would naturally depend on its initial success. But how happy our own composers would be with even such a limited guarantee! Original modes of musical thought and expression are encouraged, the more so when they give evidence of growing out of a truly Russian tradition.

Once a composer has produced a successful work he will receive commissions to keep him busy, especially if he is writing theatre music. A composer of symphonies has more limited opportunities, but the Union of Soviet Composers will take care of him and make it possible for him to live while preparing a new composition. He may, if he chooses, spend a long period at one of the country houses provided for composers, and Glier told me that he had passed three months a year in this way for several years.

To offer such opportunities to composers, without an active plan for symphony orchestras, would be impossible. Such a plan exists, and many more symphonic organisations than old Russia could ever boast are making classical and Soviet music known to wide audiences. Unfortunately, symphony orchestras were all on holiday while I was in Moscow, but during a discussion I had with two leading members of the administration of the State Symphony Orchestra in Moscow, I learned of the excellent conditions enjoyed by this famous orchestra, conditions differing only in degree from those operating elsewhere in the USSR. With its 110 musicians, the fine Tchaikovsky Hall, the limited number of concerts and ample rehearsal time, the life of this orchestra compares favourably with that of any in the world. In addition, the orchestral musician is not a mere employee, but has a leading part in the organisation of his own work, in both its artistic and economic aspects.

The key to these successes and problems of the USSR was given to us when we first reached Moscow, and were invited to attend the sessions of the Peace Conference. Delegates from all over the Union had come, and all gave the same enviable message. They told us of their past sufferings, but without dwelling on them, for they had too much else to talk about; of the achievements, cultural, industrial, agricultural and economic, which the new life had made possible.

One and all proved to us that here was a new phenomenon, nations of widely-differing traditions and cultures, of differing languages and heritage, who could live together in times of peace as one great family. We in this country know what it is to be united under the strain of war, only to lose that wonderful sentiment when the danger has passed. In the Soviet Union the family is permanent, and working to enrich their present and their future, they are creating a freedom such as the world has never yet known.

SOVIET SPORT

By James Armour-Milne

THE records achieved by the outstanding athletes of a nation are not necessarily an indication of the nation's fitness as a whole. The fact that many Soviet athletes in several sports are bridging the once wide gap that separated them from the world-record class could be misleading. It might be that the USSR has concentrated on producing great athletes. It could be that there is a gulf between the champions and the masses.

Organised sport, that is sport State-aided and guided, does not exist in many lands. But in no country in the world other than the Soviet Union is it fostered on the same mass-basis. Fabulous sums are spent each year on sport and physical training. Everything that the athlete uses is provided by the State. Vast stadiums are built, tracks put down, sports grounds laid out, gymnasia erected. Great areas of land are put at the disposal of skiers and cross-country runners, cyclists and motor-cyclists, hunters, hikers, and climbers.

Sport is an integral part of the Soviet health plan. It is a co-partner with the medical service and the physical fitness movement in the all-important task of building a healthy and strong nation. Millions take part in sport. From among these millions come a few great athletes—the champions.

Fortunately the developments do not cease with the production of the champions and a glittering array of new records. The champions are the nation's health guinea-pigs, the means by which the scientists can plan the best form and conditions for the masses in their leisure time, the barometer of just how far man may go in the search for greater achievement in the field of sport, the test-pieces for new ideas.

To use sport as a mass-movement for greater health it is necessary to delve deeply into man's reactions to organised exercise, fully to understand its biological bases, and the factors that determine the quality of performance. These many, ever-changing problems are studied by Soviet specialists, sports scientists, whose full-time task it is to investigate the question of mastery of sport, growth of athletic efficiency, and the upward trend of athletic achievement.

My special study has been the science of athletics. About a year ago a delegation to London included Dmitry Markov, chief of the athletics department of the Moscow Institute of Sport and Physical Training. Mr. Markov and I had several talks on the subject of athletics technique, and he impressed me greatly with the tremendous depth of his knowledge, not only of the event in which he had excelled as an active athlete—putting the weight—but in connection with every event upon which we touched in our discussions.

Mr. Markov told me that scientific research in sport is carried out by special research departments at all physical training colleges, at medical and teachers' schools, as well as in the special scientific research institutes in Moscow, Leningrad and Tbilisi. I have had translations of some of the scientific papers on physical training and sport. These are produced frequently, and frequently contain remarkable discoveries in the world of sport. There are, too, special journals dealing with the scientific findings, and scientific conferences are held at regular intervals.

Mr. Markov is one of the Soviet Union's greatest sports scientists. Another is Nikolai Ozolin, who, although over 40, still practises his favourite sport of pole vaulting, and still manages to clear over 13 feet every time he competes. And that is a couple of inches above the English native record made last year!

Being a branch of teaching, Soviet sports science is based on the philosophy of dialectical materialism, on physiology, biology, psychology, medicine and

bio-mechanics, and, like all science in the USSR, is inseparably linked with practice. Wide use is made of laboratory and stadium experiments. The study of graphic cycles, photo and cinema analyses are often employed in the study of athletic technique. Physiologists specialising in sport make extensive use of researches in the interchange of gases, bio-chemical experiments, and the registration of bio-electrical phenomena in the muscular activity of trained athletes. In studying heart conditions, doctors working with athletes use such methods as rentgeno-cimagraphy, electro-cardiography, the testing of blood pressure and so on. At their service at most specialist schools is a clinic for in-patients, consisting of athletes needing all-round examination of their dynamic condition.

One of the main problems attracting the attention of the scientists is that of training methods. They strive to disclose laws governing training processes, to denote the signs of training condition, to establish the condition known as "competition fitness", and the nature of this condition. Study and experiment is conducted with the assistance of the leading men and women athletes, and the outstanding juniors of both sexes. Of great interest is the study of sport among women, for they form a considerable part of the whole of Soviet sport. Much attention is given to research in motion, and to the theory of development and perfection of motive habits. Not so long ago little was really known of such highly-important psycho-physical qualities as strength, endurance, speed, and agility.

Soviet sports scientists enjoy priority in the study of the nature of these qualities. Great interest is shown in the hitherto little-studied problems of mental state before competition, the role of consciousness in attaining a high degree of skill in a specialist event, the inculcation of these qualities, and its manifestations in the training process.

Research in medicine as applied to sport has developed extensively. There is an extensive medical consultation service for athletes. By checking on the physical state of an athlete the doctor can, employing delicate diagnostic methods, not only discover changes in an athlete's condition but, in consultation with the trainer, elaborate plans for future training.

With each passing season medical experts gain access to new research methods in the function of the human organism in its relation to sports, new materials dealing with sports injuries and maladies, their treatment and prevention, fresh information on diet, on rational regimes, and the general toughening of athletes to meet the ever-increasing demands of first-class competition. Sport and physical training have their five-year plan, drawing in an ever-increasing number of scientists into the specialist field of sport, and providing for the speediest possible practical use of the research findings that have passed the tests. Some startling results may be expected in the next few years.

BOOK REVIEWS

Smoke. By Ivan S. Turgenev.
Translated from the Russian by
Natalie Duddington. (No. 988
in Everyman's Library). Dent
4s. 6d.

*Unrequited Love and other
Stories.* By Maxim Gorki, with
an introduction by Alan Pryce-
Jones. Translated from the
Russian by Moura Budberg.
(George Weidenfeld & Nicolson)
10s. 6d.

WITH *Smoke* (published in 1867) Turgenev faced the public once more after the misunderstanding, five years earlier, over *Fathers and Children*. Bazarov in that novel had baffled his own creator, and Turgenev felt that he had lost for ever the sympathy of the younger generation. *Smoke* came from a man uneasy and disappointed. In it he writes not of Russia, but of his compatriots at Baden: the fashionable set, which he satirises not quite so well as Pushkin had done in the last chapter of *Onegin*, and the noisy, skin-deep progressives whom he had already glanced at when describing Sitnikov and Kukshina in *Fathers and Children*. Potugin, an honest cynic and Westerner, pours immoderate home truths into the ear of Litvinov, the hero; but all is smoke, everything in life, even what Potugin has said. The most brilliant pattern in this vapour is the love affair of Irina and Litvinov. Irina was once a poor girl, like Tatyana, mysterious and aloof from her parents; she loved the hero, but, like Tatyana, she married a general; she meets Litvinov again, and still loves him, but, like Tatyana, she stays with her general. The story, of course, is beautifully written, and it has been well translated. Natalie Duddington never fumbles a Russian idiom; on the other hand, she lacks that fine sense of English idiom which redeemed Constance Garnett's translation from innumerable slips. This new version is much closer to Turgenev in detail, but it does not convey so subtly as Mrs. Garnett did the actual cadences of Turgenev's prose.

The five stories by Gorky were written in Italy, at the very beginning of the 'twenties, and they are translated by his secretary of that time. I have not been able to read them in Russian; but this version inspires confidence if only because the English is so natural. (The spelling of

proper names is less praiseworthy: Jakov, Bikoff, Milij, and so on flout the recognised transliteration, which it seems a pity not to use.) The stories have a remarkable range. The first, told all through one night, with the rain outside weaving about a street lamp, is a man's record of his infatuation for a provincial actress. The second is a fantasy. In the third, a self-made man, dying at the time of the 1905 revolution, finds that his property is dearer to him than his only two friends. The fourth relates how an awkward youth tries to shelter from life behind a hero; his history teacher places him as secretary to a large, methodical man who works to preserve the monarchy; the revolution unmasks both these heroes, and the pupil becomes a gangster. The last story is an account of madness, grimly absurd, with an odd twist at the end. They are mostly, in fact, about helpless and lonely people in a dark and callous world which yet has a sordid beauty. Needless to say, the stories are very well told, with great sympathy and irrepressible humour. But only when the third comes do we recognise the familiar Gorky. The last one, *A Sky Blue Life*, could have been written by no one else in the world.

It would be interesting to know how these stories stand in relation to Gorky's other work at this time. The introduction by Mr. Pryce-Jones sets out to present Gorky sympathetically to the Western World. He appears as a humanist rather than a politician, a revolutionary who was an artist in the first place and who never lost touch with the West. All this reminds one more of a testimonial than the introduction that is really needed. Surely what the reader looks for—and does partly find in the introduction to *Smoke*—are the essential facts and the historical setting. (The "biographical note" is inadequate.) One hopes that Baroness Budberg will translate more of these stories, and that she will preface them with all she knows about their origin, and perhaps with her recollections of that extraordinary person—their author.

HENRY GIFFORD.

*The Maritime History of Russia
848—1948.* By Mairin Mitchell,
F.R.G.S. (Sidgwick and Jackson.)
543 pages. 3 is. 6d.

AS a contribution to the understanding of the present world situation, Miss Mairin Mitchell's *Maritime History of*

Russia, covering the last 1,100 years, may be regarded as valuable. By bringing together in one volume the accounts of various voyages far separated in space and time, and apparently not connected with each other, she has produced a coherent picture of a great people striving ever towards the sea—and constantly being opposed and frustrated in the achievement of that objective. The motives responsible for that urge have varied from time to time, and have not always, of course, been creditable, and sometimes they have obscured the objective. But as one reads the rascinating stories which make up this long history, there is a feeling that always the objective has been the one succinctly expressed by the well-known Soviet naval author, Leonid Sobolev, in his book *The Soul of the Sea*, when he wrote of "the sea which separates the countries and unites the peoples". It is, fundamentally, to escape from their isolation, to have free exchange of goods and ideas with other peoples, that the Russians have sought access to the sea in every direction.

That more has not hitherto been known in Britain, or for that matter in any country outside Russia—and indeed, until comparatively recently, even inside Russia—of Russian exploration is to be explained by two facts. In the first place many of the explorers, and more especially the Cossacks who blazed the trail across Siberia to the Pacific, the *promyshlenny*, having little or no knowledge of navigation, simply sailed on from island to island, or from river mouth to river mouth, sometimes without any idea of what course they were steering, and kept no useful record of their wanderings. This generalisation should not, however, be held to invalidate—any more than it is invalidated by—the fact that some Russian expeditions, such as, notably, those conducted by Krusenstern, Kotzebue, and Lysianski to the Pacific Islands, and by Bellingshausen to the Antarctic, were recorded with exceptional care. In the second place, where valuable records were kept, these were sometimes left deposited in quite inaccessible places; while in other cases they were, for reasons which are not always easy to divine, kept secret by the Russian authorities. Thus, for instance, the Strait between the continents of America and Asia, called after the Danish seafarer, Vitus Bering, who sailed through it in 1741, was apparently discovered in 1648 by the Cossack Deshniev, but the records of Deshniev's voyage lay unread for over 80 years at Yakutsk, while the results of the later voyage by Bering, conducted under Russian auspices, were not made public by the Russian Government till long afterwards. This official secrecy cost the Russians dear later on, when they discussed with the United States and Britain their respective claims to territories in the North Pacific.

L1 attributing primary importance in

relation to the (Soviet) north-eastern corner of Asia, and elsewhere to Spitzbergen, to the fact that they lie on the short air routes over the North Pole, the authoress would seem to have been unduly influenced by the ideas of those who think in terms of short routes for atomic bombers from U.S. bases to the new and old industrial centres of the USSR. In actual fact, important as that short air route will surely become (for purposes of peaceful communication), the importance of the Soviet seaboard in the Far East—i.e., on the Pacific—lies far more in the fact that, as was remarked by Professor Otto Schmidt, the opening up of Northern Siberia, by the development of the Northern sea route, for which he was so greatly responsible, together with Rear-Admiral Papanin, "can be compared in importance with the opening up of America". For, as Miss Mitchell remarks (P. 17): "To-day the maritime position of Russia (the USSR) in the Far East is a factor whose importance will be very high in the emergence of new economic and social forces round the Asian Pacific seaboard".

U.S. alarm at Russian "expansionist" tendencies is shown to have been not unreasonable about a hundred years ago, when the Russians had advanced down the Pacific coast of North America to within some 60 miles of San Francisco. It was not long after that, however, that this situation was completely reversed: when the Tsarist Russian Government sold Alaska to the United States (for \$7,000,000) in 1867, it retained the Kuriles and the Kommanderski Islands, since cession of these would bring America too close to the Russian mainland. Yet it raised no objection to the transfer of the Aleutian Islands, which were eagerly snapped up by the then Secretary of State (Seward), as "American stepping-stones across the Pacific".

This policy of "containing" Russia in the Far East was, of course, paralleled in the Middle East (Persian Gulf), in the Near East (Bosphorus and Dardanelles), in the Baltic, and in the North, by various other countries, foremost among whom has always been Britain. Such a policy can be explained only as an expression of the imperialist policy of the countries which have followed it. It could be justified as an answer to the imperialist policy of Tsarist Russia. If we look, however, at the map on Pages 312-313, which shows the principal seaports of the USSR, we can hardly fail to wonder at the effrontery of Mr. Bevin's reference, on November 7, 1945, to a Great Power wanting "to go right across the throat of the British Commonwealth". The boot is so obviously on the other leg. It is a pity, therefore, that Miss Mitchell should have quoted the geopolitical nonsense of the late Sir Halford Mackinder—which she admits as having been "used by Hitler as the groundwork of his plans for world conquest".

Obsessed with Mackinder's fantastic

theory, Miss Mitchell's ventures into the field of strategy, with which she is clearly not familiar, are sometimes deplorable. Thus, for instance, she pretends that Russia's system of artificial inland waterways "has been planned with a view to enabling units of the different naval fleets to be transferred rapidly, when needed, from one sea to another", and that the existence of the Moscow-Volga Canal saved Moscow in 1941, "by enabling units of the Volga Flotilla to help in its defence". Her own remarks and the statistics which she quotes with regard to the "commercial importance" of these inland waterways, suggest a more reasonable explanation of their construction. The same unfortunate obsession must account also for the fact that Miss Mitchell seems to find it strange that the USSR should have proposed at the Potsdam Conference that the exits from the Baltic should be placed under the control of an international body, upon which she would be represented, and that the Danubian countries should have insisted that no warships other than their own should sail the Danube. It must account also for her readiness to believe fantastic stories. She would have been well advised, I think, to confine herself to the field she understands—historical research, without spoiling the effect of her book by the Supplementary Section, which contains a very "second-hand" story of the part played by the Red Navy in the Second World War, and a highly speculative and quite valueless attempt to describe the composition of the present Soviet Navy and its objectives. The annex, containing selected extracts from the *Fuehrer Conferences on Naval Affairs*, 1939-1945, seems to serve no useful purpose, any more than do the three appendices. The bibliography and index, however, are excellent and useful.

EDGAR P. YOUNG.

The Russian Railways.

By P. E. Garbutt. (Sampson Low, Marston & Co. Ltd.) 3s. 6d.

MR. P. E. GARBUTT has had considerable experience with the railways of Britain and served on the Allied Directorate of Transport, where he came into contact with Soviet Transport authorities at the end of the war.

In this book he has given a most comprehensive and competent account of the railways of Russia, which will ensure that its readers know a little more about that country than its Trans-Siberian railway and places like Omsk and Tomsk. He first deals with the historical growth of the railway network and then goes on to describe the technical side of its organisation, the signalling system, types of rolling stock and traffic. Much research has been carried out and the author has taken pains to give an up-to-date

account. Hitherto much of this information has been difficult of access.

The density of the rail-net of any country reflects the stage reached in the industrial development of that country, and in the USSR rail transport is of vital importance since it accounts for 89 per cent of the total inland goods traffic. We learn, however, that there are only 0.7 miles of railway per 100 square miles of territory in the USSR compared with 8.3 miles in the USA; major improvements have been effected since 1928, and since 1945 much of the war damage has been repaired—e.g., 30,000 miles of track and thousands of bridges have been constructed.

An interesting map shows the rail pattern and indicates single, double, and electric lines, as well as lines under construction. Most schoolboys will be fascinated by the ten half-tone photographs and accounts of the new locomotives like the "SOK" with a 2-10-0 wheel arrangement and tender-condensers which use the original water over ten times. This engine is capable of crossing the desert areas of Central Asia travelling close on 1,000 miles without the need to take in water. The book will be most useful for school libraries and for the general reader, since many broad principles of Soviet economy are covered.

G. D. B. GRAY.

Moscow Correspondent. By

Ralph Parker. (Frederic Muller)

10s. 6d. net.

RALPH PARKER is one of those rare observers whose vision is fertilised by thought and, what is rarer still, a newspaper correspondent who has faith in mankind. These attributes alone would make him a reliable guide to the Soviet Union. But he has others, such as an imaginative sympathy with the strivings of the ordinary man which enables him to see clearly the mainsprings of action, the conviction and faith that lie behind actions. Parker is interested not only in increased production and improved standards of living. He is interested in the mind of the Soviet citizen and Soviet leader, for he understands that it is his mind that is directing the course of the country's development.

Thus, in the chapters "Who Thinks What" and "Soviet Patriotism", the design and pattern of Soviet life, which is generally presented to us as completely incomprehensible, take on clarity, coherence, and simplicity. It is so like ordinary common sense.

Ralph Parker has, too, caught the excitement and thrill of the vast enterprise, with its thoughtful courage, with its boundless daring, with its shining vision of the future, in which the Soviet Union is engaged, and he communicates this spirit to the reader.

Every chapter introduces the reader to

the real USSR, and with every chapter understanding grows; of the soldier returned from the war, of the factory worker, of the peasant, of the aged professor, of Soviet democracy, and Soviet freedom.

The book helps us to understand why Soviet people, young and old, have such a great sense of social responsibility, why the war, far from destroying the unity of that multitude of peoples which is the USSR, has strengthened it.

We get more than a glimpse of how the bureaucrat, the cheat, and the egoist are dealt with by the people, how every victory over what the Russians call the "zoological survivals of individualism" strengthens the individual and the whole community.

It is good that the author should remind us of the price the Soviet Union paid for the Allied victory over Nazism. We have too quickly forgotten the Soviet's millions dead, her millions maimed, her orphans, and her vast devastation. And remembering this, her recovery and progress, the swift and increasing improvement in the living standards, cannot but convince the reader of the Soviet's pre-occupation with peace and peaceful endeavour. Every page of the book, packed with valuable information, emphasises the need, desire, and concern for peace of the Soviet Union.

BEATRICE KING.

So This is Russia. By Yngve Lundberg & Soren Hellstrom. 95 pages. (Falcon Press) 5s.

Through the Iron-laced Curtain. By M. Philips Price. 133 pages. (Sampson Low) 7s. 6d.

HERE are two short travel books, both describing journeys which took place in 1946—the first of two Swedish journalists in the USSR, and the second of Mr. Price in Yugoslavia and Bulgaria. Both suffer somewhat from appearing so long after the events they describe.

It is, nevertheless, to be warmly welcomed that an English publisher should produce the Lundberg & Hellstrom book at this juncture, because it is a wholly honest attempt to describe what its authors saw and heard. Their account is strictly objective, and ranges from everyday life to Soviet democracy, national policy, war damage, and the current five-year plan.

The book might well be recommended to those who want a simple introduction to the USSR and, if we point to a few mistakes, it is not in order to minimise its value. Factories at no period owned "Kolkhoz's" (collective farms). They did, during the war, farm land. Electoral districts are not usually as small as 1,500 voters. Strikes are not prohibited by law. There is no law which compels members of the Communist

Party to go where they are sent. The conclusion of the book, that the Soviet peoples and leaders want and need peace, is one that any honest visitor to the country is bound to form.

Mr. Price's book is somewhat more complex. He obviously recounts what he has seen with honesty and objectivity, and it is not his fault that a great deal of his account is now out of date, although in some matters, such as the role of the National Front in Yugoslavia, he did not see deeply enough. The real complexity, however, is produced by the interpretation of honest observation being made against a background of second-hand prejudice about "Russian expansion" and similar topics. This is well illustrated by his account of the Bulgarian election. Everything he saw was fair and honest, but he reports it together with a mass of rumours to the effect that the elections were neither fair nor honest. He would have produced a better book had he been content to report what he himself saw.

The rumours make Mr. Price a pessimist. He thinks that "real understanding between the Slavo-Communist world and the West will probably never be possible". Nevertheless, he does want trade. For this small but important mercy we must be thankful.

STANLEY EVANS.

A Concise Russian Course and Key to a Concise Russian Course. M. O'C. Walshe, M.A. (Hirschfeld Bros. Ltd.) 8s. 6d. and 2s. respectively.

Conversational Guide. (Hirschfeld) 6s.

Structure Drill in Russian. (Lund, Humphries & Co.) 6s.

Bondar's Russian Readers, Nos. 2 and 6. (Pitman)

THE publication of new or revised grammars, readers, and aids to Russian may be welcomed as evidence of a renewed interest in the Russian language.

Since grammar is supposed to contribute to the accurate use of a language, it is a pity that there was not more careful editing and proof-reading of Mr. Walshe's *Russian Course*. Some of the printer's errors must greatly confuse the student.

The reaction to a language text-book is very much a personal matter. Some will like the book and others will reject it, but few will find his attempts to convey Russian sounds helpful.

It may be said of any grammar that its value depends on the skill and scholarship of the teacher who uses it.

As an aid to learning with a teacher, *Structure Drill* will be found very useful, while the *Conversational Guide* is designed for those who dislike being dumb in a foreign country, and is as good a way as any of getting along in the language. The learner must, of course, have mastered Russian reading first.

Of the two Russian Readers, No. 2, Chekhov's humorous short stories, is a welcome correction to the undeserved reputation for sadness and gloom with which that author has been credited.

B.K.

Russian and the Slavonic Languages. By W. J. Entwistle and W. A. Morison. (Faber & Faber) 50s.

IT IS a curious sign of our time that of the two authors of this learned and useful book, one is the King Alfonso XIII Professor of Spanish in the University of Oxford and the other has exchanged university work for the B.B.C.

The preface opens with the timely reminder about the Slavonic languages: "The westward frontier of their influence stands . . . where it did in the 10th century of our era, on the line descending from Mecklenburg to Trieste. Ten centuries ago the eastern limit scarcely advanced beyond the Dnieper; it now reaches to the frozen waters of the Sea of Okhotsk . . . This is the centre of gravity of the land masses of the globe, much as London is the midpoint of the world's land and water connections. Few countries are so unlike as Britain and Russia, but they are complementary and have much to do with each other." This is a useful gambit to be played when the tedious talk about the "cold war" is over.

The authors seem (p. 267) to have been unduly impressed by the campaign of the French professor, Mazon, who at the beginning of the recent war (1940) published a book in which he violently attacked the genuineness of the *Slovo* (the famous Russian poem on Prince Igor's expedition in 1185), saying that it was nothing but an 18th century forgery. The recent penetrating study of the poem by R. Yakobson (New York, 1948) has shown the lack of foundation in Monsieur Mazon's theories.

The text, crammed with quotations in various languages, is very well printed. The type is slightly tiring to the eyes, especially in the tables, but any improvement in this regard would certainly raise the price, which even now, at 50s., may put the book out of reach of many of those for whom it is primarily intended.

V.M.

Giants at the Cross-roads—The Story of Ancient Civilisation

By M. Ilin and E. Segal, translated by Beatrice Kinkead. (International Publishers, New York)

\$2.50

AS we arrive at a better understanding of the role of science in the shaping of our modern world, and of its enormous possibilities for mankind in the future, so naturally we want to arrive at a better, more scientific, understanding of the whole history of science, of its relation to the development of human thought in general and of the human societies which have nurtured that development. The history of ancient society is of great importance in this respect. If we want to see how its science and thought developed, we must also examine the forces which have developed ancient society itself. Science and society are as closely connected in the ancient as in the modern world.

This book tells the story of the mutual development of ancient society and ancient science in vivid and simple terms. The giant is man himself, collective man in all his diversity, struggling to comprehend and master the laws of society and nature, so that he may the better control them for his own purposes and so extend the bounds of his freedom. Regarded from this point of view, the story of ancient society is our own story. Hence the authors succeed in increasing our awareness of the role of science in our own day. Lessons from the past thus become lessons for the present.

There are several printing errors that remain to be corrected in a future edition of the book, and on page 79 Orestes is mistakenly associated with Antigone.

R.F.W.

Soviet Russia and the Far East.

By David J. Dallin. (Hollis & Carter) 30s.

DAVID DALLIN, notorious for his "slave labour camps" myths, has now launched out in the realms of Far Eastern politics. He has produced a book which starts out with an air of pseudo-reality and ends up in the realms of pure fantasy. Throughout, Dallin continually harps upon two themes—"Stalin's expansionism" and the simple-mindedness of American politicians, like President Roosevelt, who constantly get caught by Soviet cunning. The whole has the effect of a not very clever election pamphlet of some ultra right-wing section of the Republican Party.

Space would not permit a complete list

of Dallin's omissions and falsifications, but let us take the first chapter. Here Dallin claims to deal with Far Eastern History between 1931, when Japan first attacked China, and 1936, when Japan was preparing her second attack.

Omissions include any reference to the world economic crisis, an understanding of which is fundamental to the analysis of why Japan attacked when she did; and any reference to the Japanese Twenty-One Demands on China in 1915, or to the Japanese occupation of Shantung. There is no mention of the Tanaka Memorandum, with its plan of conquering first Manchuria, then China and the Soviet Far East, and then the world. Nor is there any mention of China's break with the Soviet Union after 1927, the imprisonment and then expulsion of the Soviet Consuls. Nor does Dallin deign to refer to Sir John Simon's support for Japan's Manchurian conquest at the League of Nations, or the speeches of Amery and others in the House of Commons, which encouraged Japan to continue with her policy of aggression.

This by no means completes the list of even major omissions in the first chapter. They are omitted not because Dallin is unaware of them, but because to include them would jeopardise the false picture he seeks to draw.

For him the fulcrum of events in the Far East in the pre-war years is not Japan's long-laid plans of expansion which economic crisis gave opportunity and necessity for executing, but the Soviet-Chinese dispute of 1929, when Red Army planes dropped bags of soot on Chinese Armies to discourage the confiscation by Chiang Kai-Shek of the Chinese Eastern Railway, and an entirely imaginary later Soviet-Japanese "secret alliance."

Later periods are dealt with in the same cavalier manner.

In the war years "Moscow" only "outwardly" adheres to its alliance with the Western Powers. Poor, simple President Roosevelt goes to the Crimea Conference "hardly prepared for his difficult role". The inefficient American Army Intelligence Department has really no idea of how weak the Kwantung Army was in Manchuria. So the Crimea agreement to restore to the Soviet Union the territories wrested from Russia in the Russo-Japanese War of 1904,

which might otherwise appear in its true light as a plain act of justice, is made to seem something sinister which a feeble Roosevelt agreed to out of non-existent military necessities.

In fact, the decision to invite the Soviet Union to join the war against Japan was based upon a very realistic knowledge of the fighting capacity of the Japanese Army, gained by Roosevelt and his advisers in over three years of war. Dallin is entirely incorrect in saying that the Japanese had been defeated before the Soviet Union entered the war against them. The Americans had, it is true, won naval and air superiority, but the Japanese Army was still intact. Nor was it in any way weakened by the use of the atom bomb, which killed civilians, not soldiers.

The Japanese Army was defeated by the Soviet Army in Manchuria. There, in the Kwantung Army, were the main forces and the cream of Japanese militarism. It was this defeat and no other that brought Japan so quickly to unconditional surrender. This was acknowledged at the time by the Military Correspondent of the *Daily Telegraph*, who cannot be imagined as in any way biased in favour of the Soviet Union. The Captain Zacharius whom Dallin quotes to the contrary was himself the centre of an intrigue to secure for Japan a negotiated peace instead of unconditional surrender. Since he did not wish Japan to be defeated, his testimony is of little worth.

In his earlier chapters Dallin seeks to give an air of verisimilitude to his assertions by occasionally quoting sources. In his last chapter, however, he carries himself into a world of complete nightmare, for which not even he can find any support in his own writings. Here is the old, old story of forced labour camps, forced migrations and the like, with bald assertions of Soviet expansionism and broken treaties—and not a shred of evidence in support—because, indeed, there is none.

And Dallin's cure? "An American-Japanese collaboration to oppose the expanding Soviet Union."

Nothing could be more revealing than this desire to swing America into alliance with a fascist Japan. Dallin omits to mention the Tanaka Memorandum, yet he openly proclaims in his last pages that he and the Baron are birds of a feather.

ARTHUR CLEGG.

SCR ACTIVITIES

ALL DEPARTMENTS and Sections of the Society continue to maintain a lively interchange of material and information with their Soviet counterparts as well as meeting an active demand for British members and many overseas inquirers for information about the Soviet Union. We have space to mention only some of the current activities, but more detail is available in the Annual Reports of the Education, Film, and Theatre Sections, and of the Writers' Group, in the Science Section Accession Lists and in the various lists of SCR publications and reference material prepared by the Library.

THE ARCHITECTURE GROUP has issued a bibliography of books and articles in English dealing with Soviet architecture and town-planning (Bulletin 22). The lecture by Professor J. D. Bernal, F.R.S., in October, 1949, on *Soviet Building Technique*, has been reprinted in the February and March numbers of *KEYSTONE* and is available, price 1s. (post 2d.), from the SCR. Material is still being collected in response to the request by Soviet architects for information on contemporary British domestic architecture; to answer one of the Soviet architects' questions a discussion on the "consumer's view" of different types of new housing was arranged for March 23rd at the Architectural Association.

THE CHESS SECTION was proud to see a member of its Council, Miss Eileen Tranmer, do so well in the Women's World Chess Championship Tournament held in Moscow in December, 1949, and January, 1950. Bulletin 24, with a foreword by Miss Tranmer, is devoted to this tournament, and Bulletins 22 and 23 deal with the 17th USSR Championship. The Section entered a team in the National Club Championship of the British Chess Federation and, after a bye in the first round, defeated the Westminster Bank Chess Club 5-1 in Round 2, and lost to the Athenaeum "A" team in Round 3.

THE EDUCATION SECTION has issued as Bulletins a summary of a recent Soviet *Handbook for Teachers in Nursery Schools*, and an article by Beatrice King on the work of Anton Makarenko. It was arranged to discuss the latter in connection with the film *The Road to Life* at the end of March, and to hold the Section's Annual General Meeting on March 21st. A list of material in English on Soviet psychiatry and psychology has been prepared in conjunction with the Science Section.

THE FILM SECTION held a members' viewing of *Ballerina* on February 16th, and the Annual General Meeting was arranged for March 26th. Work is proceeding on a project to show a series of the most important Soviet films, from the silent classics to the present day, in collaboration with the London Film Club.

THE LEGAL SECTION has recently issued Bulletins 9 (The Liability of Parents for Damage Caused by their Children), 10 (Appeals Heard before the Supreme Court of the USSR), and 11 (The Soviet Judicature Act).

THE THEATRE SECTION has begun an extremely successful series of Sunday afternoon playreadings with Shkvarkin's *Father Unknown*, produced by Oscar Quitak on December 4th, Marshak's *Twelve Months*, directed by Max Brent on February 5th, and Gorky's *The Zykovs*, produced by Betty Linton on March 19th. A library of acting copies of these and other plays is being assembled. Members of the Section are also compiling a questionnaire on details of Soviet stage organisation for submission to their Soviet colleagues. The Section's Annual General Meeting was arranged for March 27th.

THE WRITERS' GROUP has arranged a series of four lectures on *Realism in Russian Literature: the Critics and the Writers*, tracing the development of the realistic tradition from the nineteenth century to contemporary Socialist realism, with readings by members of the Theatre Section. On January 25th, Henry Gifford spoke on *Romantic Realism: the Heritage of Pushkin*, with Professor R. R. Betts in the chair and Maxine Audley as reader. David Magarshack spoke on *Character and Environment: from the Classical Novelists to Chekhov* on February 28th, with E. Penning-Rowse in the chair and readings by Peter Copley and Miriam Karlin. At the request of Mr. Alexei Surkov, the Group is collecting material on English literary criticism for the use of Soviet writers. THE LIBRARY numbers among recent acquisitions *Academia* editions of Nekrasov and Lermontov, a set of attractive and scholarly brochures on the main actors and productions of the Maly Theatre, several new novels by Georgian writers (in Russian translation), and a series of new novels and short stories, as well as reprints, in the paper-backed *Ogomyek* Library. Nearly all the books awarded Stalin Prizes in 1949 are available in the SCR Library, as well as the most recent books published in English on the USSR. Books received for the Art Section include *A Gallery of Soviet Writers*, drawings by the contemporary artist Kravchenko, a number of volumes on living Soviet painters and also on Repin, and the transcripts of the First and Second Sessions of the Soviet Academy of Arts (1945 and 1946).

THE EXHIBITION DEPARTMENT has received, through the courtesy of VOKS, several unusual and attractive portable exhibitions, including one on the life and work of the painter Surikov, another on the reconstruction of Stalingrad, and one on Michurin and his work, printed in colour (with diagrams) in the same format as the Pushkin Exhibition which

was so much admired in the summer of 1949. The text of the Michurin Exhibition has been translated by courtesy of the Slavonic Society of Nottingham University, which is affiliated to the SCR. A further delightful exhibition is one on the work of the *Young Naturalist* centres, and sets of large photographs on Collective Farms, the Maly Theatre, and portraits of Contemporary Writers (since 1917) have also been received. THE SCIENCE SECTION has taken out subscriptions for 1950 to some 70 scientific periodicals: a list is available on request, as are lists of recent accessions in Law, Social Sciences, and Biology (all in Russian). The titles of recent additions in English to the Translation Library are given in a new list covering titles added during the last quarter of 1949. An announcement will be found elsewhere of the forthcoming *Index to Soviet Medical Periodicals*, prepared by the Medical Committee.

BOOKS SUBMITTED FOR REVIEW

- ALEXANDER I OF RUSSIA.—By L. I. Strakhovsky: *Williams & Norgate*, 16s.
 COMPARATIVE EDUCATION.—By N. Hans. *Routledge & Kegan Paul*, 21s.
 INTRODUCTION TO RUSSIAN HISTORY AND CULTURE.—By I. Spector.
Macmillan and the D. Van Nostrand Co., Inc., 33s. or \$4.50
 MARX—HIS TIME AND OURS.—By R. Schlesinger. *Routledge & Kegan Paul*, 30s.
 MUSIC TO-DAY.—Article by H. H. Stuckenschmidt. *Dennis Dobson*, 7s. 6d.
 OBLOMOV.—By I. Goncharov.—*Everyman's Library*, Vol. 878, J. M. Dent, 4s.
 PETER THE GREAT AND THE OTTOMAN EMPIRE.—By E. H. Sumner.
Blackwell, 6s.
 SCIENCE RUSSIAN COURSE.—By M. Fourman. *University Tutorial Press*, 10s. 6d.
 SELECT TALES.—By A. Chekhov. *Chatto & Windus*, 12s. 6d.
 SOVIET GENETICS.—By J. Huxley. *Chatto & Windus*, 8s. 6d.
 SOVIET UNION IN MAPS.—By G. Goodall. *George Philip*, 3s. (Reprint).
 STALIN AND CO.—By W. Duranty. *Secker & Warburg*, 12s. 6d.
 STALIN AND GERMAN COMMUNISM.—By R. Fischer. *Oxford University Press*, 63s.
 STANISLAVSKY ON THE ART OF THE STAGE.—By D. Magarshack: *Faber & Faber*, 25s.
 THE PEOPLE OF GREAT RUSSIA.—By G. Gorer and J. Rickman. *Cresset Press*, 10s.
 THE SOVIET AIR FORCE.—By A. Lee. *Duckworth*, 8s. 6d.
 THE SPIRIT OF RUSSIAN ECONOMICS.—By J. F. Normano. *Dennis Dobson*, 8s. 6d.

The inclusion of a book in this list does not preclude the possibility of subsequent review.

E A S T E R V A C A T I O N C O U R S E
O N
R E C E N T D E V E L O P M E N T S I N T H E S O V I E T D I S C U S S I O N S

Wednesday, 12th to Sunday, 16th April, 1950

Since the end of the war much prominence has been given in the British press to the discussions and controversies in the USSR on the arts and sciences, though it has not been widely recognised that such discussions have always been a feature of Soviet intellectual life. Only through a study of the discussions themselves is a full appreciation of their content and significance possible, and the SCR has for some time been making the texts available in translation, full or summarised, from the original Russian documents. This series of lectures is designed to give members an up-to-date picture of developments in the different fields, and to provide opportunities for discussion and fuller understanding.

The series has been arranged for a vacation period in the hope that a number of country members will be able to attend. Detailed programme from:—

SCR, 14, Kensington Square, London, W.8.

S C R B R A N C H R E P R E S E N T A T I V E S

Aberdeen.—J. A. Findlay, Esq., 72, Cairnfield Place.

Bradford.—C. C. K. Swithinbank, Esq., 16, Beechwood Grove, Wibsey.

Cambridge.—Mrs. J. L. Brereton, 11, Parker Street.

Edinburgh.—Mrs. J. Murray, 16, Rothesay Place.

Glasgow.—S. McCulloch, Esq., 106, Herries Road.

Hull.—R. Buckle, Esq., 14, Hotham Street, Cottingham Road.

Leeds.—Dr. A. Kettle, 36, Moor Road.

Manchester.—A. H. Paskell, Esq., 56, Cheadle Road, Cheadle Hulme, Cheshire.

Marlborough.—K. Stiles, Esq., 2, Elmwood Crescent.

Newcastle-upon-Tyne.—F. H. Walker, Esq., 56, Moorside South.

Nottingham.—Professor V. de S. Pinto, The University.

Oxford.—Miss G. Thorneycroft, St. Hugh's College.

Sheffield.—Mrs. B. Hunt, 13, The Quadrant, Totley.

York.—W. Coleman, Esq., B.Sc., 80, Monkgate.

JUST PUBLISHED



ENGLISH INDEX TO SOVIET MEDICAL PERIODICALS

Vol. I. 1945-1947

pp. XI, 94. Crown 4to. 20/- net, postage 6d.

This is the first of a series of indexes listing the articles published in Soviet medical journals which are available in London libraries. Seventeen journals are indexed, and the entries number 10,000. The Index contains a guide to where the volumes indexed may be found.

The index has been edited, on behalf of the Medical Committee of the Society for Cultural Relations with the USSR, by Mr. D. T. Richnell, Deputy Librarian, University of London.

LONDON

H. K. LEWIS & CO. LIMITED

Obtainable of all booksellers

Printed by the Co-operative Press Limited, 22, Long Millgate, Manchester, 3.
Pioneer House, Wicklow Street, London, W.C.1. 136, Buchanan Street, Glasgow, C.1.